Bastogne 6km.

4△37△

2

HOLLOW LEGIONS

August 12th, 1941... The 9th "Pasubio" Division's advance guard, the first element of the Italian Expeditionary Force in Russia to see action, is moving down the right bank of the Bug River. Its objective is to seize crossing points along the river to aid in the entrapment of the Soviet 9th Army. In the early morning hours, men of the 80th "Roma" Infantry Regiment launch a surprise attack to capture a bridge spanning a tributary of the Bug. The bridge must be taken swiftly to keep the advance moving...

November 19th, 1941... Unknown to Rommel, the British have launched Operation Crusader. The Italians of the 132nd "Ariete" Armored Division, however, warned by their own intelligence service of an impending attack, stand ready, well dug in behind soggy ground at Bir el Gubi. As Crusader tanks roll into range, their crews disdainful of the Italians' fighting ability, the defenders unleash a hail of AT fire which stops them cold. Then the M13/40s of the Ariete's tank regiment are ordered to counterattack. Suddenly the overconfident British have more on their hands than they bargained for...

July 11th, 1943... The 7th Infantry is pushing forward to expand and secure the U.S. beachhead around Licata, Sicily. As its 3rd Battalion nears the town of Palma di Montechiaro, it comes under fire from low hills to the south. The GIs push the Italian defenders back into the town, whereupon white flags begin appearing on its buildings. Thinking that the Italians are surrendering, a patrol is sent forward. But the flags have been put out by civilians, and the patrol is suddenly cut down by withering fire. Enraged, the battalion commander launches an all-out assault on Palma. His aim: Retribution.

September 10th, 1943... Two days ago Italy announced its armistice with the Allies. Now the German 2nd Parachute Division, supported by assault guns, is attempting to occupy Rome—but doggedly trying to block its advance is the elite 21st "Grenadiers of Sardinia" Division. The sounds of war echo through the southern suburbs of the Eternal City as the embattled Grenadiers, aided by meager reinforcements and a few armed civilians, slowly yield ground to the tough paratroopers. The Italians field some of the best weapons in their armory, but ammunition is running low and the German pressure is relentless. The battle for Rome is reaching its crescendo...

This is HOLLOW LEGIONS—the long-awaited Italian ASL module. Here is the complete order of battle for a new nationality—one never before offered in the long history of the SL/ASL systems. The Italian soldier of the Second World War has been much maligned—but is this view totally justified? How much was his performance affected by the quality of his weapons and the abilities of his small-unit leaders? Playing **HOLLOW LEGIONS**, which incorporates the results of extensive research on this lesser-known army and its equipment, will allow you to form your own opinion by giving you the opportunity to command every major vehicle, gun and troop type employed by the Italians in North and East Africa, Russia, Sicily, the Balkans and Italy during World War II. The two mapboards (#30 and #31) contained herein depict open desert; added to those in WEST OF ALAMEIN, they allow you to re-create North African battles of even greater expanse than was possible with just the British module. But **HOLLOW LEGIONS** is certainly not limited to the desert; indeed, of the eight scenarios in this module, five are set in Europe. Also included are the ASL Chapter H (Design Your Own) Italian vehicle and weapon listings, point values, historical notes and DYO charts—plus the ASL Chapter N (Armory) pages for the countersheets in **HOLLOW LEGIONS**, those for the Allied and Axis Minor infantry and support weapons, and those for British ordnance and transport.

HOLLOW LEGIONS is now available for $25.00 from The Avalon Hill Game Company (4517 Harford Road, Baltimore, MD 21214). Please add the usual 10% for shipping and handling—20% for Canadian or 30% for overseas orders. Maryland residents please add 5% states sales tax.

HOLLOW LEGIONS is not a complete game. Ownership of ASL, BEYOND VALOR, YANKS and WEST OF ALAMEIN is required—as are boards 4, 7 and 12 for three scenarios.

THE AVALON HILL Philosophy

Part 129

Many members of *AHIKS* have found something beyond the wargaming they initially wanted to do; they have made friends all over the world. It is difficult to correspond with someone for a year or more and not get to know him. Members have been known to plan vacations around the locations of their opponents (staying at Dave's place in Gettysburg, or at last going to England or Kenya because they now know someone there). Some finally make it to ORIGINS where they can now meet their friendly postal opponent after all these years. And that may be what, in the end, *AHIKS* is all about.

☆

If there is one problem that most wargamers can sympathize with, it is not being able to play the game you want when you want. The reasons vary, but in many cases it reduces to the simple lack of an opponent. (I suspect that many potential wargamers never get deeply involved in the hobby because they can never talk a buddy into trying a wargame.) But there are problems even for we hardcore devotees—not being available when the opponent is (divergent work scehdules), or a lifestyle that doesn't allow eight uninterrupted hours (say, that curse of our age, parenthood). Some gamers would like to try new game systems, but their "regular" opponents are too hidebound ("I don't want to play no monster game").

In the early days of the wargaming hobby it was particularly hard to locate opponents, and so some inventive fellows devised methods to play the early Avalon Hill games by mail. This innovation meant that one could play against an opponent across town, or across the country, without all the attendent problems of scheduling and time constraints. Players simply wrote out their moves and attacks and sent the turn along to their opponent. There were problems of course—how to handle the die rolls, how to locate opponents, length of time playing a game to conclusion by mail, the amount of effort in recording each move, enforcing honest play, and so forth. But there were some distinct advantages as well—convenience of playing when one wanted, playing the game you wanted to play, the amount of time spent each session was brief, the ability to carefully plan moves, and exposure to a wide variety of strategies and styles of play.

In 1966, a group of stalwart gamers founded *The Avalon Hill Intercontinental Kriegspiel Society* (*AHIKS*). The purpose of *AHIKS* was to be a self-policing, non-profit organization devoted to supporting play-by-mail wargaming. At the time there was only one wargame manuafacturer, hence the name; there has never been any official connection between *AHIKS* and The Avalon Hill Game Company. The officers and membership value highly their independent status; it is an integral part of their bylaws.

It was hoped by those original members that some of the problems alluded to above could be alleviated, and the advantages heightened. *AHIKS* would act as a matching service to pair members who wanted to play the same game. They would provide a standard system for generating dice rolls (the ICRK). And they would police their own ranks, barring any members who dropped out of matches without good cause or failed to act in a courteous, adult manner. In all of these endeavours, the organization succeeded admirably. And their services have grown over the past two decades.

Now there is the *Kommandeur*, a bi-monthly newsletter with news, reviews, articles on strategy for those who play wargames by mail. *AHIKS* provides pre-printed OOBs for a number of the most popular by-mail wargames, saving members the trouble of writing up their own. As games have become more complex, with numerous phases and systems, it has become necessary to provide new pbm systems for these games. A ratings system has been introduced to allow members to find opponents of equal ability. The position of "Judge" was instituted to resolve rules disputes among members, and the "Membership Guide" provides a protocol for resolving most disputes in a courteous and sportsmanlike manner.

The main services that *AHIKS* provides remain the same though. Members send in their request for the game(s) they wish to play and list a few conditions (AREA-rated, multi-player, speedy opponent, and such). When the organization has two requests for the same game and conditions, each involved member is sent a "Match Form" and an ICRK. And the game begins.

AHIKS still polices itself. Members who drop out of matches without good cause, who are discovered cheating, who behave in an immature fashion, are expelled. This does not necessarily guarantee a good match every time, but it does mean that the probability of a satisfactory game played by mail is much higher than otherwise for members. Occasionally new members are amazed to find themselves matched against well-known grognards of the hobby. Initial pride turns to horror as the game's designer takes Berlin in 1942 . . . with Yugoslavian partisans. Such matches are not always as much fun as a well-matched opponent, but they are certainly instructive for the newcomer. The important point is that all members of *AHIKS* are expected to play for fun.

AHIKS has weathered many changes in the industry, its own executive branch, mail strikes and postal rate hikes, and all the usual brouhaha of any large organization active for two decades. The *Kommandeur* has gone from an erratic newsletter to a regular, polished and professional publication. After 23 years, *AHIKS* is still going strong, and that's a healthy sign for all of us interested in the growth of this hobby. Plans for the future are, as always, to "improve services" (whatever that may actually entail, given that they do so much now). If readers are interested in joining *AHIKS*, or have any questions about the organization, you can contact:

Mr. Bill Salvatore
Secretary, AHIKS
19885 Wild Cherry Lane
Waters' Landing, MD 20874

CONVENTION CALENDAR

MAY 26-29
GAMECAUCUS II, Concord, California
Contact: Mike Wilson, P.O. Box 4867, Walnut Creek, CA 94596. (415) 228-0764.
Note: Tournaments include *TAC AIR, UP FRONT, TITAN, B-17* and *7th Fleet* among others.

MAY 27-28
DIXIECON III, Chapel Hill, North Carolina
Contact: David Hood, 15-F Estes Park, Carrboro, NC 27510.
Note: A three-round *DIPLOMACY* tournament for team and individual competition.

JUNE 16-18
MICHICON '89, Southfield, Michigan
Contact: Barry Jensen or Mike Bartnikowski, Metro Detroit Gamers, P.O. Box 656, Wyandotte, MI 48192. (313) 591-2300.

JUNE 29—JULY 2
ORIGINS '89, Los Angeles, California
Contact: Jeff Albanese, P.O. Box 8399, Long Beach, CA 90808. (213) 420-3675.
Note: The Wargame Convention of 1989, rotating this year to a West Coast location.

JULY 8-9
DOVERCON V, Dover, New Hampshire
Contact: Edward Loomis, DoverCon, P.O. Box 753, Dover, NH 03820.

JULY 21-23
ATLANTICON '89, Baltimore, Maryland
Contact: Dale Wetzelberger, Eastern Conventions Inc., P.O. Box 15405, Baltimore, MD 21220. (301) 298-3135.

JULY 28-30
DIP-CON XXII, San Diego, California
Contact: Larry Peery, P.O. Box 8416, San Diego, CA 92102. (619) 295-6248.
Note: The premier *DIPLOMACY* tournament in the States, featuring individual and team and variant competitions.

AUGUST 5
CAPITOL-CON V, Springfield, Illinois
Contact: Bill Wilson, 99 Cottonwood Drive, Chatham, IL 62629. (217) 483-5797.
Note: Among the several board tournaments are ones in *CIV, DIP, PL* and *TRC*.

SEPTEMBER 15-17
SIOUX CITY WARGAMES IV, Sioux City, Nebraska
Contact: Russ Gifford, 1600 Pierce, Sioux City, IA 55105.
Note: Among the many events—*TRC, DIP, ASL* and *SPRRF CIRCUIT.*

OCTOBER 6-8
ASL OKTOBERFEST IV, Youngstown, Ohio
Contact: Bill Conner, P.O. Box 4114, Youngstown, OH 44515.
Note: One of the premier *ASL* events, a round-robin tournament for novices and experts alike.

IT DOESN'T GET MORE REAL THAN THIS!

RIDING WITH THE BEST
A Commander's Eye View of PATTON'S BEST
By Jeff Petraska

So, your B-17 has just touched down after completing its 100th mission and you've finally decided to throw in the towel. Getting tired of dealing with flak and Focke-Wulfs? Tired of flying along like a goose in a flock with no freedom of action?

Well then, climb down from that cockpit. I've got an offer for you. How'd you like to trade in that bomber jacket and headset for a tanker's uniform and helmet? There's an opening for you as a tank commander in the U.S. 4th Armored Division. A nice, new M4 Sherman tank is waiting in the depot with your name on it, so assemble a crew and follow me. We're just about to start our little version of the *Tour de France,* if you know what I mean. I'm sure you wouldn't want to miss that now, would you? Just sign these transfer papers and you'll be an official member of *PATTON'S BEST.*

PATTON'S BEST is an earth-bound version of the popular *B-17, QUEEN OF THE SKIES* solitaire game. In *PATTON'S BEST* you command one of the many varieties of M4 Sherman tanks serving with the U.S. 4th Armored Division. As part of a task force consisting of Sherman tanks and infantry squads, you are pitted against a variety of German forces as you participate in the liberation of France and the defeat of Germany.

Like *B-17,* playing *PATTON'S BEST* is a very personal affair. That's not some nameless, faceless G.I. in the commander's hatch, that's *you.* That's your alter ego, with those of your friends, co-workers and acquaintances serving as your loyal crew. As the days pass, the attachment to these characters, and to your tank itself, slowly grows. When the day comes that you lose your tank to a panzerfaust, Panther, or PaK 43, you'll feel real regret if some of your favorite crew members are lost.

Because of this personal flavor, to simply describe the game mechanics from a third person point of view would not do it justice. Therefore, this article offers you a tour of the game as seen from the eyes of a tank commander. Your guide will be Sgt. Jeff Petraska, commander of an M4A1 Sherman (Tank card #5) named the *Iron Mule.* The tour starts on the morning of 5 August 1944 not far from Vannes, France.

0500, August 5, 1944

It was a dark, overcast morning as Sgt. Petraska trudged slowly toward the *Iron Mule.* The engine was already running and the crew had everything ready to go since the task force was preparing to move out soon. As he passed the open driver's hatch, he couldn't help taking a lighthearted jab at Bill.

"Hey, Bill!" he shouted into the hatch.

Bill's head popped up. "Yeah?"

"Let the engineers find the minefields this time, okay?"

Bill simply grinned, shook his head, and disappeared into the hull. It really hadn't been his fault that they'd hit a mine the last time out, and they both knew it. Beside, there wasn't much chance of something like that happening again.

Sgt. Petraska scaled the tank and dropped deftly into the turret. Ed and Scotty were already there, but it still seemed unusually spacious this morning.

I don't believe it. No extra ammo?" Jeff asked. "There's actually room to move in here this morning."

"Nope, just some extra .30 caliber boxes Frank grabbed for his bow machinegun," said Scotty. "It figures that the day we expect heavy opposition is the day they don't order us to take extra ammo. That's officers for you."

"So what have you got loaded for today?" asked Jeff.

"We've got 61 HE, 20 AP and 10 HCBI. I put three HE and three AP in the ready rack, along with two of the smokers," replied Scotty. "Same as usual."

"That ought to get us through the day. We won't be getting air support with this weather, and we'll have to cut back on the advancing fire to conserve ammo. I'm sure we can depend on some accurate shooting by Eddie to keep ammo wastage to a minimum, right?"

"Sure thing, Sarge." Ed patted the breach of the 75mm gun with mock affection. "I feel extra sharp today. I think today's going to be the day we kill some Panthers. I even brought a pencil with me to keep score."

"I hope you remembered to sharpen it," laughed Jeff. "You're probably going to get plenty of opportunities. This looks to be the toughest day's worth of fighting we've faced so far."

Jeff climbed back up and sat on the turret roof, looking at the dreary sky. This tank and crew had been in action since *Cobra* and had become a skilled and experienced team. So far no German tank or gun had fired at them, but they had been plagued with some bad luck lately. They lost a track to a mine the last time out, and the time before that a lucky bullet destroyed the gun sight. "If we've got to have bad luck, I'm glad we've got the kind that creates little problems instead of big ones," he thought. He glanced at the map once more, surveyed the task forces, then waved his arm. It was the signal to move out.

A day of combat in PATTON'S BEST comes in three forms. The most common are "Advances," representing aggressive rampages against disorganized German defenders. The next most common are "Counterattacks," where you and your task force must fend off attacking Germans. The third type are "Battles," representing attacks upon prepared German defensive positions. Each of these scenarios can take place against light, medium, or heavy opposition. The Combat Calendar lists each day elements of the 4th Armored Division saw action, and gives each day a code defining the scenario type and opposition. For August 5, 1944, the scenario is an advance against heavy opposition.

PATTON'S BEST is best appreciated when played as a campaign game, where the player tries simply to survive from July 1944 through April 1945. Campaign play starts by rolling initial skill levels for your five crew members, then assigning them to positions. Initial skills range from 1 to 5 (1D10/2), and may be increased after each day of combat by rolling higher than the crew member's current skill level on a ten-sided die. You start the campaign with a basic M4 Sherman (Tank card #1), the worst Sherman variant in the game. You receive a replacement tank whenever yours is knocked out, or during division refit periods if you so desire. Availability of the various Shermans changes

monthly.

I took one rules liberty at the start of Sgt. Petraska's campaign. The rule requiring players to start with M4 Sherman #1 appears to have no historical basis, but serves only to put you in the poorest vehicle in the game as a starting point. Therefore, at the start of this campaign I chose to ignore the rule and determined my starting tank at random by rolling on the Tank Availability Table. The result was an M4A1 (Tank card #5), which I named the "Iron Mule." I believe that this is more realistic and helps remedy the combination of poor vehicle and novice crew that tends to make the early campaign play difficult.

At the start of each day you must determine the weather, select your tank's ammunition load, and determine its starting deployment. Each Sherman variant has a maximum ammo limit, but you may be ordered to load up to 30 additional rounds by your commanding officer. This greatly increases the risk of explosion or fire if your tank is hit, and is especially vexing when you're commanding a late model Sherman because it negates your tank's wet stowage advantage. The best thing to do when ordered to carry extra ammo is use advancing fire extravagantly until the extra rounds are expended.

Your tank's initial deployment is determined by a dice roll at the start of the day. This indicates the status of your tank when, and if, combat begins. Possible deployments are moving, stopped, or stopped and hull down. In addition, you may be designated as the lead tank of the task force, making you a very likely target for German guns. Don't be ashamed to play very conservatively when your tank is nominated for this duty, because it really is a matter of life and death. A new deployment is determined after each engagement.

0700, August 5, 1944

The task force had been underway for two hours without incident. A few HE and machinegun rounds had been fired at possible ambush locations during the advance so far, but there had been no sign of German presence as yet.

"Hold up a minute, Bill," Jeff called into the intercom. Iron Mule lurched to a stop in response.

Jeff looked at the map again, comparing it against visible landmarks and road signs. The first objective area was about eight miles southwest of their current location. The quickest route would be to take the country road they were following into the town ahead, then head south along the highway. It would also probably be the most heavily defended route. The alternative would be to strike out south across the farmlands and meet another country road that paralleled the highway south of the town. That might take longer, but would probably be a safer bet.

Jeff radioed the leader of the recon platoon that was scouting just ahead of the task force.

"Hey Charlie, what's the opposition like south of us?"

"The locals say there are some Germans around the farms in that direction, but we haven't seen any yet. I'd guess moderate opposition in that direction, nothing too serious."

"All right, we're heading in that direction then. Over and out. Task Force Able, this is task force leader. We're heading south."

"Alright Bill, hang a left. We're going to tour the beautiful French countryside."

Iron Mule's engine roared in response, and the task force was on its way again. Although all eyes scanned the various houses and barns, the only people visible were French farmers who smiled and waved as the olive-drab column motored past. The good cheer seemed contagious, and soon Jeff couldn't resist waving back. If there had been Germans in this area, they must have retreated toward the village as the task force approached. The peaceful advance continued.

The scenario starts out on the Movement Board. This board shows a generic area of western European countryside divided into 42 areas. Each area contains a letter defining the countryside within: city, woods, fields, or farms and fields. Ten areas around the edge of the board are numbered, and two die rolls determine which ones will be your entrance and exit areas. For advance scenarios such as this one, the exit area serves as your territorial objective. Each time you capture your exit area the dice are rolled again, new entrance and exit areas are determined, and play continues.

It is at this point that the play of PATTON'S BEST really diverges from that of B-17, QUEEN OF THE SKIES. Your starting area and objective area are defined, but what route you take to get there and how fast you travel are entirely up to you. Generally speaking, it's a good idea to choose the path of least resistance rather than the path of fastest advance unless sundown is near and you're striving to reach one more exit area.

Speaking of sundown, every action you choose takes anywhere from 15 minutes to one hour to perform. The time it takes to travel between adjacent areas depends upon whether the two areas are connected by a road or highway. Highway travel is fast (15 minutes per area) but leads through towns in the center of the map where the heaviest resistance can be expected. Traveling the back roads takes twice as long, and traveling cross-country takes even longer.

Of course, movement is not your only option. You can have adjacent areas scouted to determine the enemy resistance level therein, or call for artillery or air strikes on adjacent areas as a prelude to advance. If need be, you can also call for ammo resupply or a replacement for an incapacitated crew member. All of these actions take time, however, and when the sun sets your time is up.

This freedom of action gives you enormous leeway in how you chooses to play the game. You may play very cautiously, preceding each movement with artillery and/or air strikes, in which ase you will probably not capture more than one exit area. Alternatively, you may choose to ramrod your task force along the highways regardless of opposition. This will garner you two or three (or more?) exit areas in a single day, but will cause higher task force casualties and a higher risk to your own tank. Bold, conservative, or somewhere in between, the choice is yours to make and the results are yours to live with.

0745, August 5, 1944

The task force had reached the road without incident and was proceeding southward toward the objective area. They crossed a major east-west road heading into the nearby town and followed the dirt road as it turned southwest. Sgt. Petraska keyed the radio once again.

"Able leader to Easy leader. What's the situation along the road ahead?"

"We're seeing evidence of enemy activity around some of the farm buildings. I'd expect moderate resistance if we press onward," the recon platoon leader reported.

"We're going through," replied Jeff. "It's the only reasonable route we've got."

"Roger, over and out."

The task force continued along the road without incident for another half hour. Iron Mule was hull down in a shallow gully when the radio suddenly came alive with sightings and contact reports. A squad of German infantry and an unidentified self-propelled gun were somewhere off to the left, and there were reports of a truck to the right. Soon another truck was reported to the left of the tank at close range.

Jeff quickly scanned the sectors indicated in the reports. He spotted the German squad moving

through some woods 500 yards on the left flank. Straight ahead he spotted one of the trucks making a dash for cover at medium range. The SPG and the second truck were nowhere to be seen, apparently hidden from view by nearby farm buildings and trees.

As Bill slammed his hatch shut, Jeff shouted the spotting reports into the intecom. "Infantry in woods at eight o'clock; moving truck dead ahead, 400 years. Let's take out the truck first. Do you have him, Eddie?"

"I see him," came the reply. The turret slewed slightly and the gun elevation changed as Eddie took aim at the fleeing vehicle.

"Fire at will," ordered Jeff.

There was a momentary pause, then that characteristic roar as the 75mm gun let fly an HE round. Jeff watched through binoculars as the round scored a direct hit on the truck's bed, nearly tearing it in two. The wreckage careened into a ditch and burned.

"Holy mackerel! Nice shot, Eddie!" shouted Jeff. "I guess you really are in the groove today!"

"Bring on the Panthers, I'm all warmed up now," came the reply.

Jeff surveyed the scene again. The German infantry was still in the woods to the left, engaged in a firefight with friendly infantry. A white phosphorus smoke cloud rising above trees in the distance marked the spot where the SPG was hidden. There was still no sight of the second truck.

Suddenly Jeff spotted a third truck in defilade not far from the German infantry. He swung the turret around 120° to the left, laying it approximately on the infantry.

"Infantry firing from the woods, 500 yards," Jeff called out.

Again the turret and gun shifted slightly as Ed took aim, and again an HE round was sent on its way. Jeff saw it hit short and left of the target. The infantry continued to fire but the newly-spotted truck moved quickly to the left, putting it now behind the task force. Apparently it was trying to escape in the direction they had come from. Suddenly the earth around it rose up as another Sherman found the mark, causing it to swerve wildly and overturn.

As Jeff continued to scan for additional targets a radio report indicated that the SPG had retreated. Movement quickly caught his eye as the last remaining truck dashed out from behind a barn 100 yards away. As Eddie fired a second HE round at the infantry Jeff grabbed the .50 caliber machinegun and fired a stream of bullets that passed behind the speeding truck. A glance up revealed that the HE round had found its mark, pinning the squad.

For a moment the truck stopped, its driver apparently confused about directions. It never moved again, thanks to the combined machinegun fire of nearby Shermans. Only the stubborn infantry squad remained. As Jeff turned his attention back towards its location the area around the task force erupted in enemy artillery fire. Jeff crouched down as shell fragments ricocheted off the tank, but the barrage ended as abruptly as it began. It looked as though the task force infantry had been especially hard hit, with numerous casualties scattered around the shell craters.

"C'mon Eddie, take those guys out!" called Jeff. "Scotty, I want maximum rate of fire. Frank, help pass ammo. Let's end this battle!"

The request for maximum rate of fire was rewarded by three shots in rapid succession, all of which fell right on top of the German squad and destroyed it. The order to cease fire was given soon after, and the task force paused to take account of the action. One German infantry squad and three trucks had been destroyed, and one SPG had escaped. Task force losses were three infantry squads, all casualties of the artillery bombardment. The area was now secured, and the task force prepared to continue its advance.

BETTERING PATTON'S BEST

The following are a series of questions on this engaging solitaire game by Jeff Petraska, with answers from Bruce Shelley—designer of the game. These are presented here in the hopes of clarifying some points for fans of the simulation and making their play even more enjoyable. As always, Avalon Hill welcomes questions on any of our designs still in print, provided that such are accompanied by a self-addressed, stamped envelope. However, the following may save players of PATTON'S BEST some postage:

Spotting

Q. Do I have to make spotting attempts for all enemy units every round of battle, or just those that do not have Spotted markers?
A. Just those without Spotted markers.

Q. If I only have to spot those without markers, are Spotted markers removed when my tank moves? If not, do I still have to check each unit for hidden status from my new location?
A. When you move your tank, you have the option of leaving or removing Spotted markers. When an enemy unit moves, you must remove the Spotted marker.

Q. For target identification purposes, should the crew member's skill number be rounded up (as per the table) or down (as per the rules)?
A. Rounded down.

Q. When I define spotting sectors for buttoned-up crew members in the "Prepare for Battle" sequence, does this limit their spotting to those sectors for the entire engagement or just the initial round of combat?
A. Just the initial round. They may choose new sectors each round, or unbutton, etc. This rule just fixes what they are doing when the battle breaks out.

Q. Can hidden enemy units still fire at other tanks and infantry in my task force.
A. Yes.

Combat

Q. Are German vehicles subject to track hits?
A. Yes, Deliberate Immobilization or track hit. Mark it with a Thrown Track marker.

Q. When does the Deliberate Immobilization modifier in the To Hit Target Table apply?
A. Whenever you are attempting to hit the track of an enemy vehicle; any vehicle with a thrown track cannot move or pivot.

Q. Can vehicles be hit by HE fired as Area Fire?
A. Yes. You must roll an unmodified 01-03 to hit.

Q. Can I switch between Area Fire and Direct Fire without losing target acquisiton?
A. Yes.

Q. Can I put machinegun advancing fire into a zone that contains any enemy unit(s), spotted or unspotted? If so, is that unit affected by the fire?
A Yes. Yes.

Q. If I exhaust my Ready Rack ammo supply while firing, but make my rate of fire roll, can I switch to reloading from the normal ammo supply—or must I stop firing?
A. You may switch to using the normal ammo supply.

Q. What is the availability of APDS ammo for the Sherman Firefly?
A. I suggest one ten-sided die roll.

Movement

Q. If the movement of my tank forces one or more (but not all) enemy units to leave the Battle Board from sectors 4-5, 6-8 or 9-10, what becomes of them? Are they gone for good?
A. Place them on the Movement Board in the area your task force marker occupied. If you eventually leave the Battle Board, you do not capture the area. If you want to capture the area, go back to 4.4, skip 4.5, go to 4.6 and skip 4.62, place the enemy units that went off the board according to 4.63, and continue play from there.

Smoke

Q. When my tank movement requires shifting of enemy units on the Battle Board, should I also shift the Smoke markers in play? If so, where does the Smoke marker on my tank (from a smoke grenade) shift to?
A. Yes, shift the Smoke markers. And any on your tank shift to the close range zone directly to the rear of your tank.

Q. Are Smoke markers placed by artillery strikes, air strikes, or advancing fire.
A. Yes, all three.

Q. For the purposes of tracing line of sight through smoke, is my task force assumed to be in the center hex of the Battle Board with my tank?
A. Yes.

Friendly Fire

Q. Do the friendly fire modifiers for the number of U.S.-controlled sectors and friendly force losses apply to artillery strikes—air strikes—and advancing fire?
A. No—No—Yes.

Sequence of Play

Q. If after the Random Events check of an ambush, there are no enemy units left on the Battle Board, does the engagement end at that point or does it continue to the Random Events check of step 4.77?
A. Immediately jump to 4.77.

Q. Can I freely replace broken periscopes, restock the Ready Rack, and generally tidy up my tank after a battle ends, before going back to the "Prepare for Battle" segment?
A. Yes.

Crew Actions

Q. When an assistant driver passes ammo, is the rate of fire modifier the crew member's skill (as per the table) or −10 (as per the rules)?
A. His skill rating.

Q. Does the loader's Restock Ready Rack action completely refill the rack or just ransfer one round to it?
A. It completely refills the rack.

Q. If my crew elects to bail out of the tank after throwing a track, do I get a new tank after the scenario ends or is my old one recovered?
A. The old one is recovered.

Table Typos

Q. Is the To Kill number for the Panzer VI (Tiger) in the Friendly Fire Table really "10", or should it be "1-10"?
A. Should be "1-10".

Q. Shouldn't the dice rolls for MG/LW fire against infantry in the "Enemy Action: Counterattack Scenario" table be "71-95" rather than "71-75"?
A. Yes.

"Chalk up two for us, eh Sarge?" asked Eddie. "Remember, I'm keepin' score today."
"Yep, two confirmed," replied Jeff. He surveyed the battlefield one last time, his eyes finally coming to rest on the medics tending to the wounded GIs. Trading three infantry squads for one squad and three trucks wasn't exactly a tactical victory. He hoped the rest of the day's battles wouldn't go the same way.

Jeff glanced at his watch. The fighting and re-organization had taken half an hour, and the sky was threatening rain at any minute. It was time to get going.

"Task force Able, this is task force leader. Let's move out."

"Combat in PATTON'S BEST occurs when your task force moves into a new area. The probability of an engagement occurring depends upon the level of resistance in the area and the area type. The number of German units involved is also determined by the area's resistance level: two units for light resistance, three for medium, and four for heavy.

The types of units encountered are determined randomly, but vary with the scenario type. The widest variety is encountered in Advance scenarios, where you can come across anything from a dug-in 88mm anti-tank gun to an unarmed truck. During Battle and Counterattack scenarios only enemy combat units will be encountered, reflecting better German preparation for combat.

Combat takes place on the Battle Board, which consists of a central hexagon surrounded by three concentric circles representing short, medium and long range. These circles are split into six sectors by lines emanating from the hexagon corners, thus defining 18 zones. Your tank is always in the central hexagon, and enemy units are placed into zones somewhere in the front three sectors by random die rolls.

Once all German units are in their initial positions, the combat sequence is ready to begin. If you called for a preliminary artillery bombardment or air strike on this area, the dice are rolled for each German unit to determine if they are knocked out. Advancing fire by your task force is handled in a similar manner, except only select zones are affected and German units "killed" are actually assumed to have withdrawn from the area, garnering you no victory points.

The real shooting usually starts off as an ambush, meaning the defenders get to perform the first actions. All German actions are determined at random from an action table appropriate to the scenario type. Thus, the opposition tends to be more determined during Battles and Counterattacks than Advances. Dice roll modifiers for ambushes make them especially dangerous for the lead tank (which hopefully is not yours). German actions are followed by a random event, which concludes the ambush.

After the ambush, you and your crew get to perform activities. You may open or close hatches, try to spot and/or identify German units, and choose actions for each crew member. The selected actions are then resolved by dice rolls on various tables, and any units knocked out by your tank are removed from the board.

The remaining German units get to perform their actions for this round of combat. This is followed by the friendly fire segment, where the other tanks and infantry of your task force may eliminate German units or obscure them with smoke. A final random event is determined, completing the combat round. If enemy units still remain on the battle board, play cycles back to your tank and crew for another combat round; otherwise the engagement ends and the area on the movement board becomes U.S.—controlled.

0945, August 5, 1944

After fighting through two encounters so far this morning, the task force was finally entering the objective area. Task force losses were three infantry squads from the first encounter and one tank from the second, killed in an ambush by an unidentified anti-tank gun. Opposition in the objective area was expected to be moderate, so Sgt. Petraska and his crew had an HE round already loaded in the gun and were ready for action.

As *Iron Mule* rolled along, Jeff scanned the passing farmlands with his binoculars, trying very hard to avoid being ambushed again. A steady light rain was falling now, reducing visibility and making an ambush by a concealed enemy even more likely. He was also concerned with the ground condition, for if the rain didn't let up soon the terrain would turn muddy and slow down their progress toward the second objective. Assuming they captured this one, of course.

"See anything, Sarge?" Ed asked over the intercom.

"All quiet," Jeff responded. "But stay sharp down there. I can't believe the Germans . . . "

He was interrupted in mid-sentence by a nearby explosion. The lead Sherman was showered in a cascade of sod and mud from a near miss. Once again the tactical radio came to life with shouts of warnings and contact reports. Jeff clutched his binoculars more tightly and looked for signs of the muzzle flash, but almost immediately the whooshing sound of incoming artillery filled the air. He instinctively crouched lower in the hatch, but this time the sounds passed them by and the area ahead of the task force was pummelled. Apparently someone had called for friendly artillery as soon as the first shot was fired, and now the surrounding farmlands were getting a good pounding.

As the artillery lifted, Jeff searched the sectors indicated in the radio reports. A machinegun team was reported in some woods to their left, but the line of sight was blocked by a small copse of trees. However, he did spot the anti-tank gun dead ahead at short range, and recognized it as a 75mm Pak 40. It was the gun that fired at the lead tank to start the encounter, and had survived the artillery unscathed.

Jeff's eyes were quickly drawn from the gun position to a large object moving just to the right. It was a Panther, moving across open ground at 200 yards directly toward them.

"Panther and ATG dead ahead, close range!" Jeff shouted into the intercom. "Bill, back us up NOW! I'll guide you toward a defilade position! Scotty, fire the smoke mortar! I want some cover!"

The *Iron Mule*'s forward motion abruptly ceased. It paused momentarily as Bill changed gears, then lurched backward as Bill hit the gas. Jeff spotted a sunken path not far behind them and guided Bill's driving toward it. With a sharp pop the smoke mortar fired, its bomb hitting the ground 100 yards forwards of the retreating tank and providing an instantaneous white smoke plume between them and the threat. In this rain it wouldn't last long.

Jeff glanced forward and saw the muzzle flash of the Panther's long 75mm gun through the smoke. It had fired at the lead tank but missed as the exposed Sherman took wild evasive action. For a brief moment he felt sorry for the crew of that tank, imagining the fear and panic they must be going through as the preferred target for both the ATG and the Panther.

Jeff glanced back and corrected Bill's movement toward the path. When he looked up he could hardly believe his eyes. The Panther was a dead hulk, the crew scrambling from its hatches. A 76mm Sherman has put an HVAP round right through its turret front. He also noticed that the crew of the anti-tank gun had tried to pull the gun back to medium range, but were mowed down by intense infantry fire. It was almost too good to be true.

Almost as quickly as it had started, the encounter

was over. The remaining machinegun team had been outflanked and killed by an infantry squad. Task force losses were negligible.

"Hold it, Bill," Jeff ordered. He watched as the lead tank's maneuvering stopped and the crew's heads appeared in its hatches. "Drive over to the lead tank."

Iron Mule rolled up next to the tank. Jeff saw the name "Beginner's Luck" on the side of the hull and smiled. Even in the rain he could tell the young commander was sweating profusely. He recognized him as one of the new replacements that had come up a few days ago.

"Hey, you guys all right?" Jeff shouted over. The youthful sergeant looked up, smiled weakly, and waved.

"I've never seen a Sherman dance before," Jeff chided. "You took that machine for one heck of a ride. Now take it back to the rear of the column, I think you've earned yourself a break."

The commander smiled with much more strength this time, waved a thank you, and tank rolled away. Jeff reached into the turret and drew out the map. He glanced at his watch and wrote "taken 1045" next to the circled objective area. He then planned the approach path toward the next objective.

Soldiers of any nationality will attest to the fact that the most dangerous enemy is the one you don't see. PATTON'S BEST reflects this in two ways. First, your crew must spot an enemy unit before you can fire at it. Second, and more importantly, all tanks, self-propelled guns and anti-tank guns are subject to identification by your crew. Whenever any of these units are placed on the Battle Board, they are placed face down. The back side shows a surrogate identity that is used for all purposes until it is identified. Each unidentified tank is assumed to be a Tiger; each SPG is assumed to be a StuG IIIg; and each ATG is assumed to be 88mm Pak 43. It is very important to identify these units as quickly as possible so that they may be replaced by their true (and propbably less dangerous) identities.

This is one of the reasons that ambushes are so dangerous. In an ambush you won't get an opportunity to identify enemy units until after they have performed their first actions. Thus, in an ambush every anti-tank gun is an 88 and every tank is a Tiger. This is enough to make even the crews of Sherman "Jumbo" assault tanks nervous, especially since they are called upon to lead the task force much more frequently than other Sherman variants.

1415, August 5, 1944

It was early afternoon and already the task force had engaged in more combat than on any other day before. Still, their losses were light—one tank and three infantry squads. Jeff glanced at his watch again. The task force's progress had been slowed by the frequent fighting and occasional detours around areas of heavy opposition. Although the rain had stopped at noon, the ground was soft and muddy, reducing the speed of advance even further. There was still time enough to reach the second objective today, but the third one was out of the question.

The task force was traveling along a highway now, advancing into an area of farms near the outskirts of the town ahead. Scouting reports indicated light opposition, and Jeff hoped to drive through to the town without further fighting.

The explosion of a nearby Sherman immediately dashed that hope. "Another stinkin' ambush!" Jeff shouted into the intercom to no one in particular. Once again he pressed the binoculars to his eyes and rapidly searched for the unseen foes. He quickly spotted a machinegun team moving through woods at medium range to their left and an infantry squad firing from a nearby farmhouse just 150 yards ahead.

The source of the fatal cannon shot was straight ahead at close range, not far from the farmhouse. Jeff recognized it at once. It was another Panther; but unlike the ones they had encountered earlier today, this one was presenting a side view. This was a golden opportunity, a flank shot at a Panther at close range. Even their 75mm gun could penetrate the monster under these circumstances.

Jeff keyed the intercom with excitement. "Bill, stop! Eddie, flank shot at a Panther, 150 yards dead ahead. Now's your chance, pal. Nail him!"

"We've got HE loaded," Scotty replied. "I'll change it to AP."

"Forget it, there's no time," called Jeff. "Just fire it and reload with AP from the ready rack. Maximum rate of fire."

The turret slewed slightly and the gun came down to near horizontal. *Iron Mule* kicked as the shot was fired. The HE round hit the Panther square in the turret side.

"Hit! Hit! Keep firing!" Jeff shouted. Even as he said it however, the Panther belched smoke from its exhaust and moved quickly away. "Hurry up! He's running away!"

The seconds passed agonizingly slowly. Jeff just now noticed that Frank was spraying the farmhouse with the bow machinegun, apparently with little effect. The German squad inside continued to exchange fire with their American counterparts. In fact, fire from one of the windows was directed toward the *Iron Mule*, the bullets ricocheting off the hull.

By the time the gun was reloaded with AP the Panther had retreated to medium range. It was still offering a flank shot, but as a moving target it would be harder to hit. The gun roared and Jeff saw the shot pass just behind the tank and splinter a tree trunk. "Come on guys, move faster!" Jeff called out. "He's getting away!"

Frank continued to spray the farmhouse with MG fire. The German squad had apparently had enough, because it fled the house and retreated into some woods further away. Jeff looked to his left just in time to see the machinegun team take a direct hit from a 75mm shell. The gun sailed into the air and fell several yards away. There was no sign of its crew.

The gun was reloaded with another AP round, but by now it was too late. The Panther had retreated to long range and turned to present its invulnerable frontal armor. The golden opportunity has passed, and it was time to take some defensive measures. Jeff spotted a stone wall just a few yards ahead.

"Bill, move us up to that wall. Eddie, spray that infantry squad with the coaxial. Scotty, give us a smoke screen."

As *Iron Mule* moved into its hull down position, the coaxial machinegun fired repeated bursts at the infantry. Movement of the tank made it impossible to aim, however, and most of the fire fell far from the mark. As the tank stopped behind the wall the smoke mortar fired, making the distant Panther just a hazy gray blob in the binoculars.

Both the Panther and the infantry squad moved around to the right and out from behind the smoke screen. The Panther disappeared behind a barn out of Jeff's view. The infantry could still be seen in the woods, dark figures dashing from tree to tree.

The turret rotated to the right as Eddie followed the squad with his machinegun fire. Seeing the soldiers were in good cover, Jeff grabbed the .50 anti-aircraft machinegun and added its fire to that of the .30 caliber. By this time the combined weight of the small arms fire directed toward the squad was awesome, and soon a couple of small white handkerchiefs were waving in the trees. The volume of fire died down as friendly infantry moved forward, and the few remaining German soldiers stepped out from the woods with their hands in the air.

Jeff looked back toward the barn where the

Panther disappeared. There was still no sign of it. He was about to order Bill to close the range when another rank radioed that the Panther had retreated.

Jeff dropped down into the turret. "Rats! We missed our big chance," he lamented. "I thought we had that Panther cold."

"Too bad we had an HE round loaded at the start," said Scotty. "We could have killed him on the first shot. I guess I should have changed the gun load before firing after all, huh?"

"I can't believe I missed him on that second shot," said Eddie. "Did you see how close it was? Couldn't have been off by more than a foot, if that."

"Well, I guess there's no use crying about it now," said Jeff. "We may still get another chance yet today. It's still early. We'll have to practice our rapid fire technique a little more, though. I hate to see them get away like that."

"Right, Sarge," Eddie and Scotty replied in unison.

Jeff climbed back up through the turret hatch and watched the task force get reorganized for the advance again. He glanced at his watch. The time was 1515. They had four more hours of daylight.

The single most important thing new players of PATTON'S BEST must learn is WHAT targets to shoot at and WHEN to do it. Beginning players, especially those experienced with B-17, QUEEN OF THE SKIES, will tend to open fire on every unit in sight. This is a very good way to earn a ticket home in a pine box. As the crew of a Sherman tank you must be very selective of your targets, especially of those capable of knocking you out.

The rules of thumb for target selection depend upon which gun your Sherman is armed with, the 75mm or 76mm. The 75mm gun has a superior HE lethality, while the 76mm has a superior AP penetration and higher accuracy. Regardless of gun, you may freely fire at any German unit that is incapable of knocking you out. These units consist of light weapon squads, machinegun teams, trucks, armored cars, and armored infantry vehicles (half-tracks).

Of all German units, anti-tank guns are the most dangerous to bring under fire. This is because if you fail to kill them, the probability that they will fire at your tank jumps dramatically (from 5% to 40% in Advance scenarios, 10% to 60% in Battle scenarios). They are also especially difficult to kill with HE fire, almost impossible from a 76mm gun. Before you fire at an anti-tank gun, therefore, you had better be in a hull-down position and have a good chance of a first round kill.

Only the 50mm PaK 38 anti-tank gun is a relatively safe target, especially at medium or long range or when you are hull-down. This is assuming of course, that you are facing the target. Offering any gun, even the lowly 50mm, a flank shot is like playing with dynamite.

For the 75mm PaK 40 or 88mm PaK 43, your best option is simply not to shoot at them if at all possible. Leave them for your infantry to eliminate; that's what they're there for. Note that this also applies to all unidentified guns as well.

Tanks and self-propelled guns must also be engaged with care because they too like to shoot back at whoever shoots at them. Unless you have a Sherman Jumbo, any German gun of 75mm or larger has a good chance of penetrating your frontal armor at almost any range. A good rule of thumb, therefore, is don't shoot at the front of enemy AFVs if you don't have to, or unless you have a very good chance of killing the target with a single hit. If you catch an AFV with a flank or rear shot their preferred reaction is to move back to a longer range, as the Panther did in this encounter.

Frontal shots at German tanks is frequently pointless anyway, especially with the 75mm gun. The only tank the 75mm gun can knock out with a frontal hit is the Panzer IV. A 75mm Sherman is roughly equal

to the Panzer IV, so engaging one in a face-to-face gun duel is about a 50-50 proposition, which are not really the kind of odds you'd want to bet your life on. The 76mm gun has a good chance of killing a Panzer IV with a single hit, making such duels a better bet. For all other tanks, the rule is never shoot at their front.

There is considerable variation in the armor protection of self-propelled guns, making it impossible to define a single engagement rule for them. The Marder II and Marder III are easy kills for any Sherman at any range, or these vehicles may be engaged whenever you have a high first-round hit probability. On the other hand, the frontal armor of the JagdPanzer IV and the JagdPanzer 38t (Hetzer) are virtually invulnerable. These are best given the same respect as Panther or Tiger tanks. The armor of the StuG IIIg is somewhere in between, comparable to that of the Panzer IV. Make your firing decision accordingly.

The one great equalizer that I haven't mentioned yet is HVAP ammunition for the 76mm gun. You can penetrate just about anything at medium range or less with an HVAP round; so if you've got one to spare and you have a high hit probability, you might decide to use it to knock out a particularly dangerous opponent. Just be sure to cross your fingers before you roll the dice.

1600, August 5, 1944

The task force had passed through the town without incident and was now poised at a crossroads at its outskirts. The second objective area was two miles to the west, along the muddy country road that crossed the highway they had followed through the town. Scouts had reported heavy resistance in that direction, and further along the highway. There appeared to be no reasonable alternative; they would have to take the country road and tackle whatever the Germans had waiting for them.

Jeff spent the next 45 minutes on the radio arranging a rolling artillery barrage to precede the task force into the area. Since there was no chance of reaching the third objective today and they had daylight to spare, waiting for the strike to be coordinated was worth the time expended to arrange it.

At 1645 the shells began to fall, and Jeff signaled the task force to move out. He had also ordered advancing fire, so the tanks were periodically firing HE and machinegun rounds into woods, buildings and other potential hiding places. So close to the objective area, there was no need to take unnecessary chances.

After about half an hour's time the task force came upon some evidence of the barrage's effectiveness. A demolished barn with the bodies of German soldiers scattered about lay to the right of the road. In a nearby grove of trees the remains of a German truck burned.

"I guess they were expecting us," Bill commented dryly in the intercom.

"Looks like they got a lot more than they were expecting," replied Jeff. "Pull off to the right and stop here. Eddie, get ready to provide covering fire for the task force as they advance."

"We've got an HE round in the gun as usual," came the reply.

As Bill brought *Iron Mule* to a stop, Jeff radioed the other tanks in the platoon to do likewise. The remainder of the task force would press onward up the road, then stop while the covering forces caught up. They had been using this leap-frogging technique all day.

As the first few Shermans rolled past, the radio came to life again with spotting reports. Jeff caught sight of another truck as it fled from a gully just ahead and struggled through the mud in an effort to escape. Before it got far, an artillery shell dropped right next to it, leaving it disabled. Guided by the radio reports, Jeff also spotted a German half-track

moving at long range, using a sunken road as partial protection.

"Half-track at 10 o'clock, 1300 yards," he called out as he rotated the turret toward the target. "Fire when ready, reload with AP."

There was a pause as Eddie judged the lead angle on the moving vehicle, then the gun roared as it dispatched the HE round toward the target. Jeff watched through binoculars as the shell hit well short of the mark. He heard the bow machinegun firing as he watched the shell fall. Frank was spraying the area ahead of the tank to keep any panzerfaust-toting infantrymen at bay.

The half-track slowed and stopped, apparently bogged down in the mud. That was all that was needed for one of the 76mm Shermans to destroy it with a well-placed AP round. Jeff was about to relax when an infantry squad reported sighting an assault gun at long range. He scanned the reported sector for the SPG but was unable to locate it, the line of sight apparently blocked by the nearby farm buildings.

"Bill, let's move up," he called to the driver. "There's an assault gun somewhere up ahead. Frank, continue the advancing fire."

Iron Mule moved forward slowly over the soft ground. Eddie swung the turret back to face forward. An AP round was already in the breech from their shot at the half-track. The bow machinegun fired a long burst, then went silent.

"Frank, where's that advancing fire?" asked Jeff.

"The gun's jammed up," Frank replied. "I'm trying to clear it now."

Up ahead an HE round churned up the earth near an infantry squad, apparently fired by the SPG. Jeff scanned the area again as the buildings passed by and spotted the SPG hull-down behind a small earthen bank. It was still at long range and presenting a front view. Partially obscured as it was, Jeff was unable to identify it.

"SPG straight ahead, 1200 yards in defilade," he called out. "Can anyone identify it?" A chorus of negative responses came in return.

"Keep us moving, Bill. Let's close up on him. Eddie, give us advancing fire with the coaxial MG until Frank clears his jam."

"Right-oh, Sarge." The coaxial machinegun came to life, firing several short bursts as the turret rotated slightly side to side.

The machinegun fired as Jeff watched the range to the SPG close to under 1000 yards. The SPG was moving to the left, being careful to remain hull-down behind the bank.

Suddenly there was a loud explosion. Jeff was pitched sideways in his hatch as *Iron Mule* lurched sharply, then came quickly to a stop leaning noticeably to the left.

"Oh no! It couldn't be!" Jeff cried into the intercom. He leaned forward and looked down at the left drive sprocket. A dozen feet of track lay spooled out ahead of the tank.

"A mine! We ran over another stinkin' mine!" Jeff pounded his fist against the turret roof in frustration. "Is anybody hurt?"

"Bill and I are okay," replied Frank.

"All fine in the turret," added Scotty.

"Of all the lousy luck," lamented Jeff. "This is the second time in a row!" He suddenly remembered the SPG and quickly shoved aside the self-pity. "We've still got an assault gun to deal with, so let's pull ourselves together and get on with business."

Jeff picked up the binoculars from where they had fallen on the turret roof and scanned the last direction he had seen the SPG traveling. Friendly fire guided his eyes to its new location, to the left of the tank at medium range. It was still hull-down and presenting a frontal aspect, but its movement revealed several features that identified it as a StuG IIIg.

"It's a Sturmgeschutz III, moving at 10 o'clock range 800 yards. If he fires at us from there, we'll be dead meat for sure. Rotate the turret and fire the smoke mortar. Frank, keep working on that machinegun."

As the turret swung to the left and the smoke mortar fired, Jeff grabbed the anti-aircraft machine-gun and began spraying the area directly in front of the disabled tank. He got off three long bursts before it suddenly quit.

"I don't believe this! Now this gun is jammed too!" he cried out as he tried to clear it. "What else can go wrong?"

"Don't say that!" said Eddie. "Are you trying to jinx us, Sarge?"

Jeff ignored the question and looked again toward the SPG. It had stopped in its new positon, still facing their left flank. It seemed to lead a charmed life as it continued to survive the fire directed at it by several Shermans.

"Eddie, give me some coaxial advancing fire to the left. Frank, how are the repairs coming?"

"It's jammed up pretty good," Frank replied. "I'm still working on it."

"Same here," Jeff replied. "For god's sake, Eddie, don't jam the coaxial. It's the only one we've got."

The staccato sound of the coaxial machinegun was the only reply. Jeff worked the bolt on the .50 caliber MG frantically, and it suddenly came loose. He fired a short burst to confirm it. The jam was cleared.

He looked up again at the SPG through the rapidly thinning smoke screen. It appeared to simply be sitting there, doing nothing. Just as he was about to call Scotty for another mortar round, the StuG III was rocked by a direct AP hit. The hatches popped open and the crew scrambled out in the face of considerable small arms fire. With the destruction of the assault gun, the firing soon stopped. The encounter was over.

Jeff climbed out of the turret and leaned out over the left side of the hull. The main had exploded under the left front bogie assembly, breaking the track and damaging one of the wheels. With the track gone, the bogie wheels were sunk deep into the soft earth. Bill climbed out of the hull hatch and looked at the damage as well.

"Bill, you promised me you'd wait for the engineers," Jeff moaned in mock disappointment. "Now we have to wait here for a recovery vehicle while the task force goes on without us."

"Listen to you," Bill objected. "You're not the one with the numb rear end. We can't keep doing this, you know. My doctor says it'll give me hemorrhoids."

Jeff laughed. "Oh, well, we can't have that now, can we? I'd have to make you the commander just so you could stand up all day. Still, it's too bad this had to happen so close to the objective area. Call me old fashioned, but someday I would like to finish the day with the rest of the task force instead of being towed away and patched up."

"Next time, Sarge. Next time for sure."

Jeff climbed back up into the turret and called for assistance on the radio. "Well guys, it wasn't too bad of a day until this happened," he said to the turret crew. "What was our final score?"

"We got two infantry squads and two trucks," replied Eddie. "But it's hard to forget the Panther that got away."

"Well, we'll just work on our firing drills a little more," said Jeff. "I'm sure there will be a next time, and by then we'll all be older and wiser. Until then we might as well kick back and relax. As far as you're concerned, the day is over."

A scenario comes to an end in one of two ways, either you run out of daylight or you run out of luck. This scenario is an example of the latter. PATTON'S BEST is an exercise in probabilities and chance, and even the best-played game can end in tragedy

if the dice turn against you. In this case the crew of the Iron Mule was lucky. The tank was disabled but repairable and no crew members were injured. If you must end a scenario the hard way, then this is the way to do it.

After a scenario in the campaign game ends, all surviving crew members can attempt to increase their skill rating as described earlier. In this instance the skills of Sgt. Petraska, gunner Eddie and assistant driver Frank increased to ''7'', ''7'' and ''4'', respectively. The next division refit period is September 2-10, and if this crew can survive that long they will be able to trade in their M4A1 for a more modern Sherman variant, perhaps one of the late-model M4A1s with the 76mm gun. They will also be trained to use the Sherman's gyrostablilizer, giving them the ability to fire the main gun while moving. Although this is still almost a month away, it gives campaign players a near-term goal to look forward to.

This scenario ended with the task force capturing nine map areas and one exit area for a total of 38 victory points. Enemy kills for the day consisted of seven light weapon squads/machinegun teams, seven trucks, two half-tracks, one SPG, two Panthers, and three anti-tank guns. Friendly losses were two tanks and three infantry squads, light by comparison. This scenario netted a total of 72 victory points, an outstanding victory for the 4th Armored Division. For Sgt. Petraska and his crew it was technically a defeat, however, because they failed to complete the scenario. Nonetheless, these are the kind of defeats that are easy to live with. There's a long war ahead and as long as Sgt. Petraska and his crew are still alive at the end of the day, it's a victory to me. In the campaign game, these kind of victories are the only ones that matter.

☆

CANADA'S BEST
The Saga of the Canadian 4th Armoured
By Mitch Rupe

North of the border is published the fine amateur magazine "The Canadian Wargamers Journal" (207 Bernard Drive NW, Calgary, Alberta) devoted to our pasttime—with a particularly Canadian bent of course. The following, although polished and expanded for our use, first appeared in the Feb/March 1988 issue of that publication and appears here with the kind permission of the editor and the author.

The Canadian 4th Armoured Division, while perhaps not the most famous Canadian division of the Second World War, certainly covered itself with enough glory to last the lifetimes of its men. Having arrived in France after D-Day, the division was first used in the stiff fighting around Falaise to help close the pocket from the north while Patton's troops pressed in from the south. After a brief refit, the Canadians rushed along the coast destroying pockets of resistance and seizing much needed ports. When the British attacked to capture Antwerp, perhaps the most important port for the continuing Allied advance, the 4th Armoured attacked on their left flank over the Leopold Canal. Next came the Rhine crossings and a thrust into Germany. At the end of hostilities, the Canadian tankers were mopping up in the Netherlands. The division's four regiments—the 29th Recon (the south Alberta Regiment), the 21st Armoured (the Governor-General's Foot Grenadiers), the 22nd Armoured (the Canadian Grenadier Guards) and the 28th Armoured (the British Columbia Regiment)—earned their share of battle honors and citations in some stiff actions (the 28th Regiment was virtually destroyed at Point 195). The division was "detanked" on 30th June, and disbanded on 27th December 1945.

The accompanying is a Combat Calendar to be used for the 4th Canadian Armoured Division with *PATTON'S BEST* (format as in the game). Too, to reflect the fact that the "Firefly" was in use, delete the entries for the M4A3s (#16 and #17) from the *Tank Replacement Table* and substitute the #18 Firefly Sherman version when these values are rolled.

COMBAT CALENDAR
4th Canadian Armoured Division

Month/Day	Situation	Historical Notes
6/31	—	Arrive in France
8/5	—	Arrive in Tilly
8/8	B/7/H	Cintheaux
8/9	B/8/H	Point 195
8/10	B/8/H	Quesnay
		Refitting
8/14	A/6/M	Laison Valley
8/15	A/7/H	Verainville
8/16	A/6/H	
8/17	A/6/H	Couliboeuf
8/18	A/4/M	
8/19	A/4/L	
8/20	C/5/M	
8/21	C/6/H	Chambois
8/22	B/3/L	
8/23	B/4/L	
8/24	B/5/M	
8/25	B/7/H	Le Newbourg
8/26	B/5/M	
8/27	A/5/H	Criquebeuf
8/28	A/5/L	Elbeuf—Seine Crossing
8/29	A/3/M	
8/30	A/4/L	
		Refitting
9/3	B/4/L	Point Remy
9/4	B/2/L	
9/5	A/2/L	
9/6	A/3/L	St. Omar
9/7	A/3/L	
9/8	B/6/H	Ghent Canal
9/9	B/6/H	
9/10	B/7/H	
9/11	B/5/M	
9/12	A/5/H	Molentje
9/13	A/4/H	Channel Ports
9/14	A/3/H	
9/15	A/4/M	Eecloo
9/16	A/4/M	
9/17	A/4/M	
9/18	A/4/L	
9/19	A/5/L	
9/20	A/6/M	
9/21	A/7/H	Braakman Inlet
9/22	A/7/H	
9/23	A/4/M	
9/24	A/3/L	
9/25	A/4/L	
9/26	A/4/L	
9/27	A/4/M	
9/28	B/5/H	Leopold Canal
9/29	B/7/H	
9/30	A/5/M	
10/1	A/3/L	
10/2	A/3/L	Regroup and Mop Up
10/3	A/3/L	
10/4	A/3/L	
10/5	A/6/H	Braakman Inlet
		Refitting
10/9	A/5/M	Brecht
10/10	A/4/M	

Month/Day	Situation	Historical Notes
10/11	A/3/M	
10/12	A/3/M	
10/13	A/4/M	Stroolburg
10/14	A/3/L	
10/15	A/3/L	
10/16	A/4/M	
10/17	A/4/M	
10/18	A/4/M	
10/19	A/5/M	
10/20	A/5/M	Esschen
10/21	A/6/M	
10/22	A/7/M	
10/23	A/4/M	
10/24	A/6/H	Beveland Canal
10/25	A/4/M	
10/26	A/5/H	Wouwsche
10/27	A/5/H	Bergen op Zoom
10/28	A/4/M	
10/29	A/5/M	
10/30	A/6/M	
10/31	A/7/H	Steebergen
11/1	B/7/H	
11/2	B/7/H	
11/3	B/7/H	
11/4	B/8/H	occupied Steebergen
11/5	A/3/L	Zijpe
11/6	A/2/L	
11/7	A/2/L	
11/8	A/2/L	
11/9	A/2/L	
11/10	A/2/L	
11/11	A/2/L	
11/12	A/2/L	
11/13	A/2/L	
11/14	A/2/L	Cleared zone of responsibility
11/15	A/2/L	
11/16	A/2/L	Placed in army reserve
		Refitting
1/26	B/6/H	Kapelsche Veer
1/27	B/5/H	
1/28	B/5/M	Operation "Elephant"
1/29	B/5/M	
1/30	B/5/L	
		Refitting
2/26	B/4/M	
2/27	B/5/M	
2/28	B/7/H	Hochwald Gap
3/1	B/3/M	
3/2	B/7/H	
3/3	B/7/H	
		Refitting
3/6	B/6/M	
3/7	B/7/H	
3/8	B/7/H	Veen
3/9	B/8/H	
3/10	B/8/H	
		Refitting
4/1	B/5/L	Eiten
4/2	B/6/M	Twente
4/3	A/5/L	

Month/Day	Situation	Historical Notes
4/4	A/5/L	Almedo
4/5	A/5/L	
4/6	A/5/L	Meppen
4/7	A/6/L	
4/8	A/6/L	
4/9	A/6/L	Sogel
4/10	A/5/L	
4/11	A/5/L	
4/12	A/5/L	
4/13	A/6/M	
4/14	A/6/M	Friesoythe
4/15	A/2/L	Regroup and Mop Up
4/16	A/2/L	
4/17	B/6/M	Edewechterdamm
4/18	C/5/M	
4/19	A/5/M	
4/20	A/5/M	Oldenburg
4/21	A/5/L	
4/22	A/5/L	
4/23	A/5/M	
4/24	A/5/M	Edewecht
4/25	A/5/L	
4/26	A/6/L	Querenstede
4/27	A/5/M	
4/28	A/6/M	
4/29	A/5/M	
4/30	A/5/M	Bad Zwischerwahn
5/1	A/3/L	
5/2	A/5/L	
5/3	A/2/L	Oldenburg
5/4	A/2/L	Placed in army reserve

WHEELS OF DEMOCRACY
The Development of the M4 Sherman
By Jeff Petraska

PATTON'S BEST offers the opportunity for players to command a vehicle that is the epitome of Allied tanks in World War II: the U.S. M4 Medium tank, better known as the Sherman. Indeed, the Sherman tank is the star of the game, the focus of all that transpires. Given 18 Sherman variants to choose from, players enjoy gaining simulated firsthand experience in how these vehicles operated, learn what their advantages and disadvantages were, and appreciate the situations that faced our fathers and grandfathers as they drove and fought these vehicles through western Europe.

The Sherman models included in the game are a very good sample of the various design changes that this vehicle underwent from its appearance in 1942 to the ultimate designs that were reaching the front of 1945. This article fleshes out the design history of the Sherman tank that *PATTON'S BEST* illustrates so well. So take The *GENERAL* in one hand, your stack of *PATTON'S BEST* tank cards in the other, and read on.

Sherman Prehistory

In the summer of 1939, the Rock Island Arsenal began producing America's first medium tank, the M2. Constructed from a multitude of face-hardened steel plates and mounting a 37mm gun in a turret, it was a development of indigenous pre-war designs going back to the early 1930s. Nonetheless, this tank had features that would be used in later U.S. tanks throughout World War II. First, it was powered by a 350-horsepower Wright air-cooled radial engine, giving it a tall silhouette. Also, its suspension consisted of a front drive sprocket, three bogie assemblies per side, and a rear idler wheel. The bogies consisted of two spoked road wheels, each having a vertical volute spring suspension. At the top center of the each bogie assembly was a return roller to support the track on its way to the drive sprocket. The track had two rows of steel guides that passed on either side of the road wheels. Until the development of horizontal volute spring suspension, this system was to set the pattern for all American medium tanks.

Only 18 M2 medium tanks were built, for by 1940 it was apparent that the worsening world situation and rapid design improvements had already made the M2 a design without a future. The latest news about European tanks indicated that the 37mm gun was obsolete and the M2's thin armor would be no match for its contemporaries. In order to keep pace with potential adversaries, it was decided that the next U.S. medium tank would have to be armed with at least a 75mm gun.

A new medium tank design was standardized in July 1940 as the M3, later known to the public and military as the "General Lee." Soon thereafter an international buyer appeared. Britain desperately needed tanks to make up its losses in France and contracted with U.S. manufacturers for 685 M3 tanks with a modified turret and fighting compartment. The British model was known as the "General Grant."

The Lee/Grant bore considerable similarities to the M2. It had the same type of suspension as the M2, was powered by a Wright radial engine (400 HP), and had a very tall silhouette. The hull was of riveted construction and roughly the same shape as that of the M2, but this new tank had a 75mm gun in a right front hull sponson. In addition, a new cast turret armed with a 37mm gun sat atop the angular hull.

The obvious drawback of the M3 was the sponson-mounted 75mm gun, which was limited to only 30 degrees of traverse in azimuth and 29 degrees in elevation. A turret-mounted 75mm was far more desirable, but a turret large enough to contain the weapon had yet to be designed. Given the choice of waiting another year or two and producing nothing or of putting the M3 into production while a larger turret was designed, the latter choice was selected. Considering Britain's urgent need for large numbers of tanks in north Africa and the desire to get some kind of modern tank into U.S. Army service soon, there was really very little choice at all.

The M3 medium tank production began in March 1941 and was terminated in August 1942. A total of 4924 tanks were produced during this period. During production a number of M3 variants having different suspensions, hulls and/or engines were tested. A number of these variations would have direct application to the design and construction of the next U.S. medium tank.

The Original Shermans

In September 1941 the first prototype of America's next medium tank, the T6, was completed at Aberdeen Proving Ground. The T6 had the new cast turret with a 75mm gun and a cast-hull with three .30 caliber machine guns, one in a flexible mount. The track, suspension and powertrain were straight from the M3 Lee. Like the M3, it also had doors in the hull on each side and provision for a commander's machinegun cupola. The Rock Island Arsenal was building a second T6 prototype, this one with an angular, welded-hull. After inspection, a number of modifications were suggested, including the elimination of the hull side doors and the cupola. The design of the modified T6 was approved (both cast- and welded-hull versions) in October as the M4 Medium tank. The welded-hull version was designated the M4 and the cast-hull version the M4A1. The "Sherman" was born.

For modern armored vehicles it is usually the case that variants are produced sequentially, with the latest models containing improvements over those with earlier designations. The current M1/M1A1/future-M1A2 is such an example. This was not the case with the Sherman. By the end of 1942 there would be five M4 variants in production simultaneously in American factories. The diversity was driven by one central need, the need to produce a battleworthy medium tank in massive quantities for U.S. and allied service. The main stumbling block in meeting tank production quotas was the lack of suitable engines for the vehicles. The difference between most of the Sherman variants put into production was the powerplant, as no one engine was available in sufficient quantity to be used in all of the production vehicles. The only exception was the M4A1, whose production was limited by many manufacturers' inability to produce the large, one-piece hull casting. These manufacturers produced welded-hull versions instead.

The first Sherman to roll off the production lines was the M4A1, based upon the cast-hull version of the T6. Powered by the same Wright (later Continental) R-975 air-cooled radial engine as the M3, the M4A1 was the only Sherman variant to have a fully cast-hull. As the first production vehicle, the earliest versions had features that were soon abolished from the design. The fixed pair of .30 caliber forward firing machineguns were eliminated in March 1942, and the new, longer-barrelled 75mm

gun replaced the original short-barrelled gun. The 75mm M4A1 was produced from February 1942 through January 1944, for a total of 6281 units.

The next Sherman variant to enter production was the M4A2, in April 1942. This welded-hull variant was powered by a General Motors 6046 diesel engine which had also been used in the M3A3 and M3A5 variants of the Lee. Like the M4A1, it also had its predecessor's track and suspension. As the first welded-hull Sherman to be produced, it helped to pioneer the fabrication techniques that would later be applied to all the other angular versions. Although produced in quantity (8053 units with the 75mm gun) until May 1944, it served little part in the U.S. war effort. The U.S. Army decreed in March 1942 that only gasoline powered tanks would be used overseas by our troops, condemning the M4A2 to use as a training tank. It was, however, supplied in quantity to Britain and the Soviet Union.

The third Sherman variant produced was the M4A3, starting in May 1942. Outwardly it was very similar to the M4 and M4A2, except for the rear hull and engine deck. The M4A3 was powered by a Ford GAA V-8 gasoline engine, which had been developed from an experimental V-12 airplane engine and tested in an M3 in February. This engine proved to be compact and have an excellent power-to-weight ratio, making it the engine of choice for the U.S. Army. Had sufficient quantities of this engine been available, other Sherman variants would have been cancelled. The original Ford production run of 1690 75mm-armed M4A3 tanks ended in September 1943. After this a modernized M4A3 was produced by other manufacturers, as will be described later.

Although the first Sherman variant to be approved, the M4 did not enter production until July 1942. The M4 was identical to the M4A1 except for having the welded-hull. Because the welded-hull offered slightly more interior space, the ammunition load of the M4 was 97 rounds (compared the 91 for the M4A1). Production of the M4 with the 75mm gun ended in January 1944, with 6748 such tanks being built. Some of the late M4 tanks produced by the Detroit Arsenal had a composite hull with a cast front similar to that of the M4A1 welded to standard M4 angular sides and rear.

The M4A4 Sherman also entered production in July 1942. The unique feature of this vehicle was its increased length, required for the installation of the Chrysler A57 multi-bank 30-cylinder engine. The rear hull was lengthened 11 inches and the bogies were spaced farther apart than on the other Sherman versions. The A57 engine was difficult to maintain due to its size, so much so that an intensive training program was offered to maintenance personnel to familiarize them with the problems unique to this engine. Rejected by the U.S. Army for overseas duty, the M4A4 was used for training in this country. Of the 7499 M4A4's produced by September 1943, the majority were delivered to Britain under Lend-Lease. They performed excellently in British service, bearing the designation Sherman V.

The last of the original Sherman variants to enter production was the M4A6, in October 1943. This vehicle used the M4A4 hull but with a cast front, similar to the late Chrysler-built M4. It was powered by a Caterpillar D200A radial diesel engine that was capable of operating on a variety of fuels. However, by this time the decision has been made to concentrate on production of the M4A3, and M4A6

production was cancelled in February 1944 after production of only 75 units. Tests held at Fort Knox the next month showed that the M4A6 had superior fuel economy and cruising range than any other Sherman variant. Nonetheless, the vehicles were used exclusively by the U.S. Army for training purposes.

All of the Sherman variants in production before 1943 had early design features that were later modified. First, the original tanks had a bolted, three-piece differential housing (lower front hull). This was first replaced by a single piece cast housing having the same large curvature shape. Later, a second cast housing design with a flatter surface and sharper curvature was adopted, offering improved ballistic protection.

The early vehicles also had direct view vision slots with armored shutters in the front hull for the drivers. These were soon replaced by rotating periscopes installed in the hull hatches and fixed auxiliary periscopes mounted just in front of the hatches. The periscopes provided the drivers with protection from small arms fire and shell fragments,

plus gave them a wider field of view when buttoned up.

Another early design feature was the narrow M34 gun mount, which covered only the gunshield immediately around the cannon. A second, smaller shield was attached to the coaxial machinegun to provide protection for its opening in the gunshield. On tanks with the M34 mount, the gunner sighted the main gun through a periscope in the turret roof that was aligned with the gun. However, this sighting system was difficult to keep in alignment and was replaced by a coaxial telescopic sight added to the gunshield to the right of the main gun. Since this required a new opening in the gunshield, a new combination gun mount M34A1 was standardized in October 1942. This new mount covered the entire width of the gunshield, protecting the main gun, coaxial machinegun, and gunner's sight openings from small arms fire.

Another significant modification was the replacement of the original M3 bogies with a new, heavy-duty bogie in the summer of 1942. The new bogies had larger springs, a rounded track support skid on

top, and s support roller that was displaced rearward. The new bogies reduced the number of suspension spring failures being experienced on the heavier Sherman variants.

Ballistic tests showed that the frontal protection of the Sherman tanks was very uneven, especially for the models with the welded-hulls. The front armor of these models consisted of several separate armor plates welded together, and the weld joints proved to be weak spots compared to a solid plate or casting. Also, the inside of the right front turret wall was machined down to provide space for the main gun controls, creating an armor weakness in that area as well. Finally, the drivers' hoods protruded out of the 57° sloped front hull, resulting in vertical surfaces that were prone to penetration.

The problem of the drivers' hoods and the turret front was solved by the addition of applique armor welded over these areas. The turret problem was later permanently corrected by thickening the casting. The weakness of the hull weld joints, however, was not corrected until the later Sherman models were designed. If you examine the Sherman penetra-

1

M4

Driver Hatch ACTION: STOP D

Assistant Driver Hatch ACTION: A

Gunner ACTION: G

Loader ACTION: LOAD L

Commander Hatch ACTION: C

M4

Characteristics
Chassis: M4
Turret: A
Gun: 75
Armor Class: I
Main Gun Rounds: 97
Rate of Fire #: 30
Special:
No Loader Hatch

	HE	AP	WP	HCBI
Gun Load				

Ready Rack Load: 8

HE	0	1	2	3	4	5	6	7	8
AP	0	1	2	3	4	5	6	7	8
WP	0	1	2	3	4	5	6	7	8
HCBI	0	1	2	3	4	5	6	7	8

Spotting Restrictions

Crew Member	Buttoned Up	Open Hatch
D & A	Tank Front only	All Sectors except Rear
G	Turret Front only	————
L	Any one Sector	————
C	Any one Sector	All Sectors

tion table in *PATTON'S BEST*, you'll see that this weakness in the front hull armor is the only difference between armor class I and II, and explains why the M4 and early M4A3 versions have armor class I while their contemporary, the M4A1, has armor class II.

In addition to applying applique armor to the front, additional one-inch armor plates were welded to the hull sides over the sponson ammunition storage areas. This ammo storage layout proved to be a considerable design defect in combat, and was corrected in the later Sherman variants.

In June 1943, the Army Ordnance Committee recommended the installation of a British 2″ bomb thrower into the Sherman's turret. This device (called a smoke mortar in *PATTON'S BEST*) resembled a flare gun and was mounted to the left front turret roof. Although the mortar mounting was not flexible, its range could be adjusted from 35 to 150 yards through the use of a propellent gas regulator.

A turret roof hatch was installed over the loader's position starting in December 1943. Combat experience had shown that the single commander's hatch made it difficult for the loader to escape in an emergency, since he was forced to wait for both the commander and gunner to exit first, plus having to duck under the gun breech. For those tanks already produced, a loader's hatch installation kit was available.

Tank cards 1-9 are examples of these early Sherman designs. The drawings all show them having the latest model differential housing, the heavy duty VVSS suspension, and the M34A1 gun mount. Cards #1, #4 and #7 are the earliest variants, each having the original (type A) turret. These tanks would have been produced sometime between October 1942 and the summer of 1943. The next oldest are the B turret models, #2, #5 and #8. Having both the smoke mortar and loader's hatch, these models would have left the assembly lines in late 1943 or early 1944. Note that all of the type A and B turrets have applique armor to the right of the gun mount, although none of these drawings show applique armor anywhere on the hull. Tank cards #3, #6 and #9 have the type C turret with the commander's vision cupola (discussed later), making them probably some of the very last of these models produced. They could also represent B turret models with the commander's split hatch replaced by the vision cupola in the field.

Although the 17-pounder was a later modification, the Sherman VC Firefly pictured on tank card #18 is an example of the many M4A4s sent to Britain. Compare the length of the rear hull and the spacing between bogies to any of the American variants, and the lengthened hull will be obvious. Also note the rectangular loader's hatch and the stowage box attached to the turret rear. Both of these items are British modifications.

The oldest Sherman variant in *PATTON'S BEST* isn't found on a tank card, but on the box cover. This vehicle is an early M4A1 with the original M34 gun mount and the rounded, one-piece differential housing. If, as the picture suggests, this vehicle was serving with the 4th Armored Division in December 1944, it would have been one tired old warrior indeed.

Improving the Armament

The design of the Sherman's turret made allowances for the possible installation of three types of gun: the standard 75mm gun, a high velocity three-inch (76.2mm) gun, or a 105mm howitzer. All three of these weapons eventually saw service on the Sherman tank, made possible through the use of a 69″ turret ring. This was three inches larger than that of its contemporary, the Panzerkampfwagen IV.

Work on mounting the three-inch gun and 105mm howitzer got underway soon after the Sherman went into production. This work ended up involving the redesign of these guns to make their size, weight, and balance suitable for turret installation. The 105mm howitzer mount was standardized by the end of 1943, using the same production turret as the 75mm Shermans. Since vehicles carrying the howitzer armament are not represented in *PATTON'S BEST*, the details of its development will not be described here.

Of greater interest to *PATTON'S BEST* players is the development of the 76mm gun. Interest in this gun as an alternate Sherman tank armament was due to its higher muzzle velocity and, therefore, greater armor piercing capability. It should be noted, however, that the Sherman tank was not designed as a tank killer. According to U.S. Army doctrine, the Sherman tank was to provide infantry support, create breakthroughs, and rapidly penetrate into the enemy rear areas. This mission did not include getting involved in face-to-face gunnery duels with enemy tanks. It was the job of the tank destroyers to eliminate enemy armor.

This doctrine is important to remember because the 76mm gun sacrificed high explosive effectiveness (compared to the 75mm gun) for the sake of a one-inch increase in armor penetration. A 76mm HE round weighed 12.9 pounds and carried an explosive charge of .86 pounds, compared to the 1.47 pound charge of the 14.7 pound 75mm HE round. Given the Sherman's envisioned role, there was no perceived urgency for the installation of the more powerful gun.

Testing of the newly-modified 76mm gun began in the latter half of 1942 installed in the turret of an M4A1. Minor design changes were recommended, and in February 1943 the revised versions were tested again. The Ordnance Committee approved the design for production but the Armored Force Board disagreed, citing inadequate turret space for the crew and pointing out that the design was simply a "quick fix" to get the vehicles into production using current components. So it was that the 76mm Sherman, which could have been produced in quantity before the end of 1942, was sent back to the drawing board.

In July 1943 the next prototype 76mm Sherman was produced. Given the designation M4E6, this tank borrowed a preproduction turret from the T23 medium tank to mount the 76mm gun. The vehicle also contained several other design changes that would appear on the next generation of Sherman tanks. The combination of the 76mm gun and the larger T23 turret proved to be a winner, and the design was recommended for immediate production with minor modifications in August 1943. In fact, the Army Ground Forces requested 1000 M4E6s and ordered that the production of 75mm-armed Shermans be discontinued. This idea was again harpooned by the Armored Force Board due to the 76mm gun's poorer HE round. Objections about the smoke and dust produced by the gun's muzzle blast were also raised. The former problem was solved by redesigned ammunition and the latter was reduced by fitting a muzzle brake on later 76mm guns that deflected the blast to the sides.

The first Sherman tank variant produced with the 76mm gun appeared in January 1944, and many were available by late spring. However, their initial reception by combat forces was lukewarm at best, since armored commanders were reluctant to issue the new tanks to their units so close of *D-Day*, without adequate time for crew training. Even as late as June 12, at a demonstration for U.S. armored division commanders (in attendance were Generals Grow, Oliver and Patton), the attendees were impressed with the gun's performance but did not want it to replace most of their 75mm Shermans.

It would not be until after bludgeoning through the bocage country of Normandy, when Sherman tanks found themselves forced to battle German Panthers and Tigers in spite of the Army's doctrine, that the 76mm gun would be in high demand. Even it would not penetrate the frontal armor of these enemy tanks, however, leading to demands for an even larger gun. A conversation between an irritated General Eisenhower and General Bradley is reported to have gone something like this:

Eisenhower: "You mean our 76 won't knock these Panthers out? I thought it was going to be the wonder gun of the war."

Bradley: "Oh, it's better than the 75, but the new charge is much too small. She just hasn't got the kick to carry her through the German armor."

Eisenhower: "(expletive deleted)! Why is it that I am always the last to hear about this stuff? Ordnance told me this 76 would take care of anything the Germans had. Now I find you can't knock out a damn thing with it."

The gunnery tables in *PATTON'S BEST* clearly show the differences between the 75mm and 76mm guns. The 76mm gun has better long range accuracy and higher kill probabilities against armored vehicles, but a lower rate of fire and poorer HE effectiveness. It also clearly shows that the 76mm gun will not offer you any more killing opportunities against German AFVs when firing standard AP rounds, but will give you a higher kill probability when such an opportunity arises.

The Later Shermans

The mid-1943 the list of design change recommendations for the M4 series medium tank had become considerable. These changes included production of the 76mm and 105mm armaments and rearrangement of the ammunition stowage for better protection. Combat experience in Africa and Italy had shown the Sherman to be highly prone to burn when penetrated, the fires caused primarily by ignited ammunition. The new design moved the ammunition stowage from the sponsons to the hull floor, in new racks that were surrounded with water and antifreeze to suppress ammunition fires. This design was called "wet stowage," and was to be used on all redesigned 75mm and 76mm Shermans. A "W" was appended to the vehicle's designation to indicate this feature.

Another important design change for the welded-hull variants was a new front hull. By changing the front armor slope from 57° to 47°, the entire front could consist of a single sheet of armor. By eliminating the weld joints around the driver's hatches, the hull protection was increased, and the thickness of the front hull was increased from two inches to two-and-a-half inches to compensate for the decreased slope. The new hull would also have larger drivers' hatches, a feature that was applied to the cast hull as well.

A late development that would be applied to these variants was horizontal volute spring suspension (HVSS). Early designs were tested in April 1943, but it was not until a year later that the final version was tested and approved for use. The HVSS suspension offered a smoother ride and a wider track (23″) for reduced ground pressure. The new track had a single set of guide teeth in the center that passed between split bogie wheels, rather than solid bogie wheels and twin track guides of the VVSS design.

The new production plans called for the following armament for the redesigned Sherman variants:

M4: 76mm gun, 105mm howitzer
M4A1: 76mm gun
M4A2: 76mm gun
M4A3: 75mm gun, 76mm gun, 105mm howitzer

Production of the M4A4 and M4A6 was to be cancelled. Since the M4A3 was the preferred model for the U.S. Army, it was the only one that would still be produced with all three types of guns. Vehicle armament was appended to the vehicle's designation in parentheses.

The first of the new variants to begin production was the M4A1(76)W, in January 1944. As with all 76mm Shermans, it used the T23 turret and had a commander's vision cupola. The vision cupola consisted of a raised circular hatch surrounded by six glass vision blocks which gave the commander a 360° field of view while buttoned up. The early vehicles moved the old split commander's hatch and machinegun mount to the loader's position. Because the split hatch interfered with the view from the vision cupola (especially when open), it was later replaced by the oval loader's hatch. The guns of early vehicles did not have a muzzle brake. The late production models were equipped with HVSS suspension. In total, 3426 M4A1(76)W Shermans were produced before the end of the war.

The M4(105) was produced from February 1944 through March 1945. Of the 1641 vehicles, the last 841 had HVSS suspension. Like all 105mm Shermans, these vehicles had armored ammunition boxes instead of wet stowage. Plans called for the production of an M4(76)W tank beginning in the summer of 1945, but these were cancelled as the war in Europe drew to an end.

The M4A2(76)W entered production in May 1944, and a total of 2915 vehicles were produced. Except for the welded-hull, this vehicle had all the new design features of the M4A1(76)W. Because it retained the diesel engine, most of these Shermans were shipped to the Soviet Union.

The modified M4A3 variants were produced in the largest quantity. Some 3071 M4A3(75)W variants were produced from February 1944 through March 1945. All had the new hull and wet stowage, but an apparent shortage of vision cupolas (the 76mm turret had priority) meant that many of the early vehicles left the factories with the original split commander's hatch. However, replacement of these hatches with the vision cupola was easily done in the field because they were both designed to fit in the same sized opening in the turret roof. Late production vehicles had HVSS.

The M4A3(76)W was produced from March 1944 through September 1945, for a total of 4542 units. Like the M4A1(76)W, early versions had a split loader's hatch and main gun without a muzzle brake. The last 2617 were equipped with HVSS.

The M4A3(105) variant was produced from May 1944 through June 1945. Of the 3039 produced, the 2539 built from September 1944 onward had HVSS. Its features were virtually identical to the M4(105).

There was one additional M4A3 variant produced for a short time, the M4A3E2 assault tank. Only 254 "Jumbos" were built during its production run of May through July 1944, and all were armed with the 75mm gun. The purpose of this vehicle was to provide direct fire support against enemy defensive positions, which was why the 75mm gun with its good HE round was selected over the 76mm. The vehicle's hull was the same as the other M4A3 models, but armor thickness was increased to four inches on the front hull and three inches on the sides by welding additional plates to the exterior. The turret was specially designed for this vehicle and had an armor thickness of six inches all around, seven inches on the gun mount. All of these vehicles has VVSS suspension, although they were produced with extended edge connectors (or "duckbills") to effectively widen the track and offset its considerably higher weight.

The M4A3E2 was highly successful in combat, and requests were made to produce a 76mm version. Plans were made, but later dropped in favor of a modified M26 Pershing. However, the M4A3E2 could be modified to carry the 76mm gun in field depots fairly easily, since the gun mount used on the tank was originally the same version used on the 76mm Shermans. The U.S. Army gave its authorization for such conversions in March 1945, and some Jumbos were rearmed in this manner.

In the summer of 1943, when it became apparent that the Challenger tank would not be available in quantity before *D-Day*, the British decided to mount their 17-pounder in Sherman tank turrets. Although the new gun reduced crew space in the turret, it was not as serious as the U.S. experience with 76mm gun because the 17-pounder had a shorter breech and required less space. The assistant driver's position was sacrificed to provide ammo stowage, however. With a muzzle velocity of 2980 feet/second and with its standard AP round, the 17-pounder proved to be the excellent anti-tank weapon that the 76mm gun had failed to be.

Tank cards #10-#18 are samples of these late production vehicles. With the exception of the Sherman VC (tank card #18, mentioned earlier), there are a pair of cards for each vehicle type. In each case, the card with the smaller number represents an early production vehicle and the larger represents a late production vehicle.

For example, tank cards #10 and #11 represent the M4A3(75)W. Card #10 represents an early vehicle without HVSS or a vision cupola, such as would have been produced through most of 1944. The card also indicates that it does not have wet stowage, but after researching this topic I'm convinced that this is an error. All late model Shermans (except the 105mm versions) had wet stowage, as the designation indicates. Tank card #11 shows the vehicle as produced in late 1944, with a vision cupola and possibly HVSS.

Tank cards #12 and #13 are probably the best known in *PATTON'S BEST* for they represent the M4A3E2 "Jumbo" assault tanks. Card #12 shows the vehicle as originally produced, and card #13 shows the tank refitted with the 76mm gun. I am at a loss to explain the possiblility of HVSS suspension listed on the cards, for it is certain that the M4A3E2 was never produced with it.

Tank cards #14-#17 all represent the production 76mm versions of the Sherman tank. Cards #14 and #16 represent an early M4A1(76)W and M4A3(76)W, respectively. Both these vehicles have the split loader's hatch with the anti-aircraft machinegun mount. Cards #15 and #17 show the later versions of these two vehicles with the oval loader's hatch and muzzle brake. HVSS is available on all four of these vehicles.

On to Posterity

As I said at the beginning of this article, the Sherman tank is the epitome of Allied tanks in World War II. Produced in massive quantities and supplied to both Britain and the Soviet Union, the Sherman tank saw action in almost every combat theater of World War II. Although best remembered for its contribution in the European theater, the Sherman also performed yeoman service in the Pacific doing the job it was designed to do, provide direct fire support for friendly troops. A slogan going around in 1942 was, "We'll win the war with the M4." It turned out to be quite true.

The strange thing about the Sherman tank is that its fame was not gained from its combat strength. Throughout most of its lifetime the Sherman was both undergunned and underarmored, facts to which any veteran *PATTON'S BEST* player will attest. However, it did have very good mobility so that, when deployed in numbers, they were able to maneuver into flanking positions and defeat their stronger opponents. Captured German tank crews used to tell their U.S. captors, "One of our tanks is better than ten of yours . . . but you always have eleven!"

The Sherman did have a few combat capabilities superior to their German counterparts. All Sherman tanks had an elevation gyrostabilizer for the main gun and a power turret traverse. The latter gave Sherman crews an edge in getting off the first shot, or at least being able to train the gun onto a target quickly once fired upon. For example, the following incident occurred on April 22, 1945, and is recounted in the history of the 5th Armored Division:

Corporal James E. Mathies, tank gunner of A Company, 34th Tank Battalion, was all set for anything as his tank rounded a corner and he saw an unfamiliar vehicle 400 yards away, its gun pointed straight at Mathies' tank. Mathies' 76 roared twice in rapid succession and the rear of the strange vehicle disappeared. It was a British scout car. The British soldiers manning it piled out and were recognized before further damage was done.

The British commander of the car afterwards came up looking for Mathies. "That was fast shooting, old chap." he told the 34th Tank Battalion gunner. "We had been here an hour, waiting to shoot anything that moved around that corner, and when you came around it you hit me twice before I could lay my hand on the trigger." With that he patted the startled Mathies on the back and went to see what he could salvage out of his scout car.

Perhaps the Sherman's greatest strong points were its mobility, reliability and versatility. The M4 chassis was adapted for an almost innumerable variety of tank destroyers, engineering vehicles, self-propelled guns, and other specialty vehicles. The tanks themselves were sometimes armed with various types of flamethrowers, rocket launchers or other special devices that are simply too numerous to be mentioned. The M4 chassis was mechanically sound, dependable, easy to maintain, and could do just about any job required of it.

The Sherman tank must be considered one of the great tanks of history. Designed in 1941, it served throughout World War II and the Korean conflict (where it comprised over half of the U.S. tank force). It was not until 1957 that the last U.S. Army Sherman tanks were declared obsolete and relegated to the scrap yards. Modified versions soldiered on in Israeli service even longer, and Shermans can still be found in the military inventories of minor countries. Few are the tanks that can surpass the Sherman's longevity, which stands as the ultimate testimony to the quality of its design.

Bibliography

One way I can tell if a game is good is if it inspires me to look further into its subject matter. If *PATTON'S BEST* has piqued your interest in the Sherman tank as much as it has mine, I can recommend the three books that I used to write this article.

The most detailed and informative source of the Sherman tank's design history I've seen is *Sherman: A History of the American Medium Tank* by R.P. Hunnicutt (Taurus Enterprises, 1978). This book also appears in the *PATTON'S BEST* bibliography. The bulk of the information used in this article is from this source, including the "quick shooting" anecdote.

Another good source of design information is *M4 Sherman* by George Forty (Blandford Press, 1987). This book provides a good history of the Sherman tank, but is not quite as detailed as the previous source. It does contain numerous firsthand accounts of Sherman tank crewmembers however, and is the source of the Eisenhower-Bradley conversation and the German tankers' joke.

Finally, *Sherman in Action* by Bruce Culver (Squadron/Signal Publications, 1977) provides a short but well-illustrated description of the Sherman tank variants that saw service in World War II.

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IMPROVING ON PATTON'S BEST
Realism in the Solitaire Game
By Rich Jennings

20 September 1944

The 4th Armored Division of George Patton's Third Army is advancing east out of the Moselle River valley. It has been overcast all morning, with the threat of rain hanging in the air. Your tank, *ALF* (named after Alf Landon, Republican loser in the 1936 presidential election), an M4A1 Sherman, is third in the column moving along the first paved road you've seen in two days. With hatches open, your driver "BJ", his assistant Fred, and you yourself are carefully studying the countryside through eyes trained by three months of combat experience. From below, the smell of coffee drifts up as your gunner "Oddball" and his loader "Oge" finish the last of their "lunch break". You're uneasy. Sure, G-2 reports expect only light resistance in this area, and your company's advancing fire has been successful in driving back the scattered German resistance encountered so far this morning. Too successful. That copse of trees on the left, a perfect spot for . . .

"Muzzle flash near the base of that big tree!"

The lead tank explodes in a ball of fire. A staccato burst of machine gun fire and the whine of richocheting bullets.

"Fred, somewhere around that big tree! BJ, button up fast and stop this thing!" Behind you, Tank 4 goes hard left and plows into the soft mud on the shoulder. Rookies!

"Got it! AT gun bearing three-four-five, range two-zero-zero."

"HE round loaded; reload ready."

"Bearing, mark. Range, mark."

"FIRE!"

You know that your gun crew is good. No problem getting off that crucial second shot. The first round was a bit high.

"Correct range to one-niner-eight. FIRE!"

An explosion erupts near the base of the tree. KO one AT gun!

That machine gun sounds again. This time hitting a squad as they bail out of a halftrack. "Jeeze, they're getting cut to pieces!" Tanks 2 and 5 cut loose in the direction of the machine gun's bunker.

Silence . . . except for the cries of the wounded and the crackling flames from the twisted pile of metal that was the lead tank. At least for now, it's over. It will take another fifteen minutes to clean up before moving on. A chance to try enjoying the coffee Oddball just handed up to you; a chance to let the gnawing in the pit of your stomach subside.

The radio crackles with the voice of the C.O., "All right youse guys, let's move out. Hey ALF, nice shootin' there. Take the point. Oh, and now G-2's saying we can expect 'moderate' resistance up ahead."

BJ shifts ALF into gear and, with a lurch, you begin moving. There's a splat against the top of the turret. Rain has finally begun to fall.

A reminiscence of combat from the E.T.O. history? No, just a dramatized replay of an engagement on the battle board of Avalon Hill's new tank game, *PATTON'S BEST.*

Morning Briefing

For those readers not familiar with the game, a brief description will set the stage for the discussions that follow. Successfully combining a roleplaying game with a board game, *PATTON'S BEST* puts you in command of an M4 Sherman tank in Patton's Third Army. The game can be played on three levels: as a single engagement (as depicted in the opening of this article), as a scenario for a complete day, or as the entire campaign of the 4th Armored from 27 July 1944 through 18 April 1945. On each day of the campaign, there is the possibility that your tank will see action; if it does, there is the chance that combat engagements will break out several times during the course of this scenario. Based on the historical events encountered by the division on a particular day, a scenario can be typed as an Advance, a Battle, or a Counterattack. The Advance scenario represents the rapid drive of your division across Europe meeting only scattered resistance. In a Battle scenario, the resistance is greater as you assault prepared enemy positions. Under a Counterattack scenario, you are on the defensive attempting to repel German thrusts.

In your role as tank commander, you control the actions of the tank's crew in fighting and maneuvering your vehicle. As a solitaire game, the German infantry and armored units are controlled by dice rolls (using a pair of ten-sided dice) and several Action Tables. The number of enemy units activated during any type of engagement is determined by the expected level of resistance (Light—two units; Medium—three; Heavy—four) encountered by the 4th Armored on that day. These enemy units can be infantry, machine gun emplacements, light armored vehicles, AT guns, self-propelled guns, and tanks which take the form of the PzKw IV, V, VIe "Tiger" and even—although rarely—the VIb "King Tiger". Rounding out this impressive list of threats is enemy artillery, anti-tank mines and panzerfausts with which you must contend.

Winning at *PATTON'S BEST* is measured in very basic terms. For each of the three levels of play, if you are killed or your tank is knocked out, then you lose. If both you and your tank survive, you win. While victory points are awarded for territory captured and enemy units KO'ed (points that can lead to promotions and decorations for valor), the bottom line is still survival, which is rooted in your experience and skill in selection of tactics in each combat situation.

To understand how well *PATTON'S BEST* handles the many diverse elements of armored warfare, it will be helpful to briefly compare it with Avalon Hill's earlier popular solitaire offering, *B-17: QUEEN OF THE SKIES.* Comparing how each game handles the key areas of player involvement, the various elements of combat within the solitaire environment, and how each game captures the particular style of combat, *PATTON'S BEST* does score better than *B-17.*

In *B-17*, the "star" of the game is, as is historically correct, the Flying Fortress itself with its ability to absorb tremendous punishment and still bring its crew safely home. The aircraft commander—the player—is really "along for the ride". Formation flying, and a limited variety of adversaries attacking from fairly predictable angles, offers the commander only minimal opportunities to make offensive/defensive decisions. This situation changes only at the point when the struggle to keep the aircraft in the air has been intensified due to severe structural damage, equipment failure and/or crew casualties.

Armored combat was radically different than the air war, a fact that is readily apparent in *PATTON'S BEST.* Since the Sherman tank was never designed to withstand heavy punishment when engaged with the enemy, survival depends upon the commander's skill in first assessing what the enemy can do to you and what you can do to him, then employing the best offensive or defensive action in order to gain an immediate tactical edge. AP, HE and Smoke ammo, machine guns, smoke grenades and movement are all available options. The enemy units also have a variety of responses determined through the Action Tables. He may move in any direction, perhaps changing terrain; he may fire at your tank or other American units; or he may simply do nothing. Because the actions of each enemy unit are as unpredictable as the roll of the dice, the tank commander must be ready to respond to continually changing game situations. Beyond question, this is an intense game!

Clarifying Your Orders

As you may have surmised by this point, I definitely recommend *PATTON'S BEST* to the WWII gamer who is looking for a different approach in a wargame than is usually found in the normal board game. For the student of armored vehicles, the game's inclusion of seventeen Sherman tank variants, plus the British Firefly, presents a unique insight into the development of the M4 tank.

The only area in which *PATTON'S BEST* does not get top marks would be in the category "Completeness of Rules". Perhaps, in the last-minute haste to meet production deadlines, more than the usual errata crept in, along with two "cloudy" passages in key sections of the rules. After corresponding with Bruce Shelley, the game's designer, I offer these notes to the reader as rules clarifications:

1. *Rule 4.65.2* Par. (a) refers to a non-existent Rule 19.4; the correct reference is Rule 20.43.

2. On the *Enemy Action: Counterattack Scenario* Table under "MG/LW", the dice range for "Fire—Infantry" is printed as "71-75"; it should be "71-95".

3. On the *Friendly Action* Table, the KO range for the PzKw VI is printed as "10"; it should be "1-10".

4. On the Sherman *Tank Cards*, the 50 cal. AAMG is depicted only on Card #1; however, all variants used in the game carried this weapon.

5. Although not specifically mentioned in the rules, *Smoke Markers* are affected by Sherman tank movement in the same manner as enemy units.

6. Note 1 on the *Enemy Vehicle/Gun Apperance* Table states that once a Tank/SPG/AT Gun has been identified, all subsequent Tank/SPG/AT Gun units appearing during this engagement will be of the same type. However, even though it is already determined, the identification of these subsequent units is not "automatic" upon being spotted; the tank crew must still make a successful Identification DR on the spotted unit.

Turning to the two "cloudy" rules sections, the first is the *Friendly Action* Table. This table covers four distinctly different types of Allied fire: Allied aircraft attacks; advancing fire conducted by your tank and other Third Army units accompanying you; friendly fire executed in Rule 4.76 representing fire from armored and infantry units immediately engaged in combat along with your tank; friendly

"Off Board" artillery fire. The confusion here is that the listed DRMs applicable on this table should be applied differently to each of these types of fire, but the table does not clarify these distinctions. For example, artillery fire would not be affected by the DRM for the loss of tanks or the loss of infantry squads. To better illustrate the application of these DRMs, I offer the following matrix:

Friendly Fire DRM Matrix

	Air Strike	Adv Fire	4.76 Fire	O.B. Arty
Flanking Fire	N	N	(1)	N
Air Strike vs Vehicle	Y	N	N	N
Each US-controlled Sector	N	Y	Y	N
Arty vs LW/MG/AT in Woods	N	N	N	Y
Each Inf Sq lost vs Lw/MG	N	Y	Y	N
Each Tank lost vs Vehicle	N	Y	Y	N
Smoke in Target Zone	Y	Y	Y	N
During Fog/Snow	(2)	Y	Y	N
Adv/Arty vs Vehicle	N	Y	N	Y

Notes: (1) Flanking fire is applicable only when generated on the *Random Events* Table and is conducted by friendly units on the immediate battlefield.

(2) Air Strikes are not allowed during fog or falling snow conditions (*Time Use* Table, footnote #1).

One final note on this table. Air strikes were rarely used to lay smoke. If that result is rolled when resolving air attacks, it can be ignored. However, to improve the game's accuracy, consider that even the presence of fighters would cause enemy units to drastically restrict their movements. Therefore, if a "Smoke" result is rolled, treat it as an aircraft interdiction. Mark the unit with a homemade "Interdiction" counter and ignore any "Move F/L/R/B" results subsequently rolled for that unit on the *Enemy Action* table.

The second rule section that is not clear is Rule 4.77.2. Following the completion of a combat round, you are directed to return to Step 4.4, "Prepare for Combat", in order to resume play. If followed exactly, this sequence returns you to steps that should only be conducted at the beginning of the scenario. The correct sequence of steps should be:

4.41 through 4.46
skip 4.47, 4.51 and 4.52
continue from 4.53.

This should eliminate any confusion in restarting the combat precedure.

Tweaking the Game System

While the game system of *PATTON'S BEST* is complete as it stands, there are always suggestions that can be made to improve play. I offer the reader three such "Optional Rules" for this game.

The first concerns the point values assigned to each area on the Movement Board. I was surprised that the designer gave each area a victory point value of "1". Considering that the towns and crossroads represented by the "C" areas would have more strategic value than the open fields of the "B" areas or the farm fields of the "A" areas, it only makes sense to give the "C" area a heavier point value. This has the secondary effect of giving the player more incentive for attacking these strategiic areas as he moves towards his exit rather than bypass them in favor of areas with lower resistance. Similarly, because the terrain of the "D" areas would be more difficult to attack/defend, this type could also be given a heavier point value. I would suggest, then, an *Optional* Point Value system as follows:

Area A: farms and fields—1 point
Area B: open fields   —1 point
Area C: towns   —3 points
Area D: woods   —2 points

My second Optional Rule involves what *SL/ASL* gamers refer to as the "Vehicle Cover Arc" (VCA) and the "Turret Covered Arc" (TCA) for enemy tanks and SPGs. When a German tank/SPG is acti-

vated, subsequent die rolls determine the sector in which it appears, the range, the type of terrain, and its facing relative to your tank's position at the center of the Battle Board. The game makes an assumption that, as the tank commander, you would not know the turret facing of the enemy tank. While this is a valid assumption, it does give the German tank a "cheap" shot at your tank when its VCA is not oriented toward you. By contrast, the Sherman tank must pay a +10 per Sector DRM penalty for changing its TCA prior to firing and a +25 per Sector DRM penalty if it changes its VCA by pivoting, and then your tank can only fire if the crew has been trained in the use of the gyrostabilizer! There is a +10 "First Shot" DRM penalty that is applicable to the German units, but it simply does not cover the aiming problems created by turret rotation, and it covers only the first shot. Consider this example: a PzKw IV fires at you during the Ambush Phase taking the "First Shot" penalty and misses; then, in response to your tank's movement during the subsequent U.S. Action Phase, the Mark IV rolls to change facing to a "side" orientation. During the German Action Phase, it again rolls "Fire—Your Tank" and does so without penalty, even though turret rotation would be required to bring its gun to bear on your tank.

While, admittedly, the tank commander would not be able to determine the facing of the enemy tank's turret with certainty, I feel that this important factor should be taken into consideration. To do this, I dug out some old turret counters, probably from *CROSS OF IRON*. When the German tank rolls to fire at the Sherman, the turret counter is used to indicate the firing TCA. Ignoring the listed "First Shot" DRM, the German AFV is penalized with a +10 DRM for the first round fired from a side facing, a +20 DRM for the first round fired from the rear facing. Of course, the gamer must take into account that a turret hit on any German AFV which has changed its TCA must now be resolved with the "Front" To Kill values, whereas a hull hit is resolved with the appropriate "Side/Rear" To Kill values. Incidentally, the purist may want to increase the per-Sector DRM to +15 for the Tiger and King Tiger tanks as they are rated "slow turret-traverse" AFVs. Even if the German tank subsequently moves, the new TCA is maintained until required to change by again firing at your tank.

A self-propelled gun presents a slightly different problem, as it would need to pivot the entire vehicle to bring its gun to bear on the target. Since these units were not equipped with a German equivalent of the gyrostabilizer, in order to historically reflect the aiming problems caused by pivoting, I would recommend the following option. If "Fire—Your Tank" is rolled, the enemy SPG is allowed only to change its current side/rear facing to a front facing. In the following turn(s), if "Fire—Your Tank" is again rolled, the SPG fires at you.
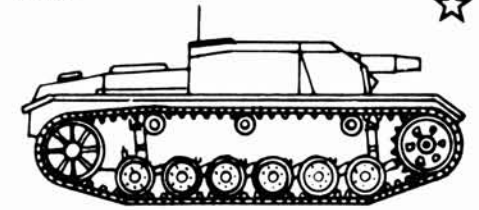
The third Optional Rule challenges the game's assumption that AT Guns are always activated oriented towards your tank. When an AT Gun is encountered, it is quite plausible that the gun crew could be engaging another target not in your direction, or simply be unaware of your tank's approach. To reflect this, roll to determine the facing of AT Gun(s) which are activated using the "Tank" column of the *Vehicle Facing* table. AT Guns are then subjected to the same DRM penalties for firing outside their covered arc as tanks/SPGs. Because of its 360-degree mount, the German 88mm gun would use the +10 per Sector DRM; all other AT Guns would have to be manhandled into the new firing position and are subjected to the +25 per Sector DRM. Unlike SPGs, AT Guns are allowed to pivot and fire in the same turn.

The above three variant rules serve best when all are incorporated, but even individually will enrich your game.

Evening Debriefing

To bring things to a conclusion, in *PATTON'S BEST* Bruce Shelley has captured the feel and the intensity of armored combat in a solitaire game which is easy to learn, yet challenging to master. The "Optional Rules" offered here are intended to correct any few oversights that can be found with the game's design by purists and enhance your enjoyment.

For now . . . "the rain has stopped as ALF and its combat veterans push into another sector over roads leading toward Bastogne and, ultimately, the Rhine."

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strength of his own units, limited information about the positions held by other Confederate units, and only a general awareness of the location and type of the Union forces. The supreme commander would have knowledge of the location of his entire army, plus whatever information about unit strengths that the corps commanders chose to relay. The supreme commander would write general orders to the corps commanders. The corps commanders would have full command of the units in their corps, would determine which units would move and attack, and send that information to the Gamemaster. The same thing would happen on the Union side, although a single player might want to take command of two or more corps. The Gamemaster would release general information about the opponents' unit strengths only when the units are attacked. Most games, from the simplest to the most complex, could be played in a similar manner to re-create the battles being simulated more completely. Of course, on a tactical level, this sort of division of command would not be as realistic as it would be in a strategic or operational game. Other factors, such as hidden units, unknown orders of battle, or terrain, could become important and could be added into the simualtion.

Frankly, I doubt that most people will embrace Gamemastered play-by-mail as the method they play their games. The investment in terms of time and effort is probably too much for the average player who is involved in wargaming as a hobby. There is simply no easy answer to the conflict between realism and playability. The first wargame that I ever owned was *1914*. That design, which was very innovative for its time and had a number of features that are still valid today, used inverted counters to re-create the Fog of War. Things have not progressed very far from that starting point, largely because the mathematical basis of our wargames cannot reproduce the intangible facets of war. Re-creating the reality of the battlefield information gap takes a lot of work, but it can add a great deal to our understanding of the history that we are trying to examine. No wargamer would re-create Pickett's Charge in the course of a game, knowing what he knows about the historic result. And yet, on the third day of the battle of Gettysburg, having evaluated the information available to him from the previous day's fighting, Robert E. Lee chose to attack Cemetery Ridge, the center of the Union line. Perhaps a wargamer, limited to the sort of information that Robert E. Lee had available to him, would reluctantly make the same choice. After all, the information that we wargamers take for granted was, for Lee, lost in the Fog of War.

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CONTEST 145

It's the start of Game Turn 9 in a playing of Situation #12 for *PANZER LEADER*, and the Germans have muscled their way into Grancelles. Fifteen American combat units have fallen. At least a dozen more are threatened. Still, the Americans have dished out a lot of fire recently. Some of the best German units are pinned. Prior skillful delaying tactics have diffused the German attack. As the enemy concentrates to deliver his final blows, what moves should the American player make to have the best chance to parry the thrusts and win a dazzling victory against the odds?

Unit Placement:

Americans:

	Hex(es):
105mm + 3 Inf platoons	Aq2—spotted
Truck	Ar2
MG + Inf platoons + Truck	Aq3
57mm AT each	Ar4 and Au3
3 Sherman platoons	Aaa4
2 M8s + M20	Az8
3 Inf platoons + halftrack	Ax6—spotted
2 81mm Mortar	Dw2—spotted
Inf platoon	Du5—spotted
M20	Dff3
3 US wrecks each	Aj2 and Aw6
US wreck	Ay7

Germans:

	Hex(es):
2 MkIV + StugIII + Hetzer	Av6—pinned
Eng platoon	Av7—pinned
3 Inf platoons + 234/4	Ay5—pinned
234/1	Dy7—pinned
234/1 + Puma + Lynx	Ax8
halftrack	Aw6
Inf platoon + halftrack	Aw7
Panther	At7—spotted
2 Panthers	Ak7-spotted
MkIV	As9
2 Inf platoons mounted in halftracks	Kuhn
120mm Mortar + truck	Av9
Inf platoon mounted in halftrack	Av9
halftrack	Dv3—spotted
3 81mm Mortar mounted in trucks	Dw3
Hetzer	Daa5
2 Inf platoons + 2 halftracks each	Du4 and Dt5
2 20mm AA + 2 trucks	Ds3
German wreck each	Ay6 and Au7

Note spotted units were marked. Except where noted, units are not mounted. All optional and experimental rules from the rulebook are in effect. The US 105mm howitzers may fire one smoke shell concentration.

The answer to this contest must be entered on the official entry form (or a facsimile) found on the insert of this issue. Simply indicate your actions with each American unit—if movement is desired, the last hex entered; if firing, the target and the odds of the attack. Close combat must indicate both movement and attack. Ten winning entries will receive a merchandise credit from The Avalon Hill Game Company. To be valid, an entry must include a numerical rating for this issue as a whole and a listing of the three best articles in the judgment of the contestant. The solution to Contest 145 will appear in Vol. 25, No. 4 and the list of winners in Vol. 25, No. 5 of The *GENERAL*.

Coming Attractions
TURNING POINT: STALINGRAD

A year ago I was recommending *THUNDER AT CASSINO* to one and all without reservation as the best wargame I had ever played. I now find myself somewhat sheepishly unable to make the same claim. Oh, I still like it a whole bunch; but *TURNING POINT: STALINGRAD* has replaced it as my all-time favorite. Just call me fickle.

Actually, it's not surprising that I'm so enamored with this game since it evolved from the *STORM OVER ARNEHM/THUNDER AT CASSINO* school. I merely blended the strongest points of the former games with new concepts that improved on some of those game's weaker points. *TURNING POINT: STALINGRAD* is a battalion-level, area-movement game using a modified form of Courtney Allen's semi-simultaneous movement system in which players alternate moving a single unit or group of units rather than all their forces in a single turn. This "reactive" style of play, while not conducive to easy PBM, is a format I've always found exciting. And in *TURNING POINT: STALINGRAD* I believe it has evolved into one of the most intriguing systems ever—one faintly reminiscent of *VICTORY IN THE PACIFIC*—another of my old favorites.

TURNING POINT: STALINGRAD is not just *STORM OVER ARNHEM* moved to the Volga with a different scale and protagonists. While owing its ancestry to Courtney Allen's creation, it has evolved into a unique game system all its own. The German player is in command of the Sixth Army during its nine-week battle for the city just prior to the catastrophic encirclement which proved to be the turning point of the war. The Russian commands the 62nd Army of Vasily Chuykov with orders to hold the city until the Russian winter offensive springs the trap that will doom Sixth Army.

The battle is broken into nine weekly intervals. At the end of each week, the German's progress is measured against Sudden Death victory criteria which will either end the game or allow it to continue another week. This approach causes the average one-week basic game to end in three to four hours, but also allows players to continue to the latter stages of the battle and so experience the full spectrum of the agony that was Stalingrad. Players may choose from two sets of victory conditions—an exacting schedule emphasizing a quick conclusion or a lenient scale in which the most likely result is a draw (allowing the simulation to continue). Therein lies the key to happiness for both types of enthusiasts—a quick-playing game for the competitive-minded and a realistic simulation for the practitioners of the realism-at-all-costs school. Reviewers often decry the absence of both a good game *and* a good simulation in the same package. I unabashedly declare that *TURNING POINT: STALINGRAD* is both.

Each week consists of seven daily turns, each of which in turn contains a varying number of day and night impulses. Unlike *STORM OVER ARNHEM*, a player does not move all his units every day. The number of impulses—or chances to move—it limited and usually in short supply. Consequently there is little of the "Pass" mentality of *STORM OVER ARNHEM* while "outwaiting" an opponent by moving one unit at a time. An impulse wasted is a slice of precious time gone forever and therefore must be used to best advantage immediately. This "ticking clock" aspect forces the German to be constantly on the attack and marshalling his forces for use in the remaining daylight hours. For nightfall brings Russian reinforcements across the Volga and an increasingly aggressive opponent no longer intimidated by the Luftwaffe. In fact, sunset works a veritable transformation over the battlefield as the Russians infiltrate back into the same blocks cleared by the Germans by day.

Most combat is not of the ranged fire type common to *STORM OVER ARNHEM*, but of the house-to-house variety with entrants of an area attacking the occupants in close combat. Each move/attack pays a price for its action in that it is flipped over to its inactive side for a period ranging from one to four days. These periods of inactivity give the Russian enough respite to rush reinforcements into place—usually just in the nick of time—to avert a catastrophic breakthrough. Encirclements are very real possibilities. Whenever a defender is unable to pay his Casualty Point bill for any attack, the attacker may continue his move with the victorious assault units. The resulting Overruns deep into the Russian defenses can be devastating, but can also leave an overreaching attacker out on a very shaky limb of his own. It makes for some very interesting nights.

The result is an exciting game of power and maneuver in the opening weeks, which if the Russian survives will soon settle down to the positional slugging match so characteristic of the more highly-publicized aspects of the battle when the Germans encounter the rubble and fortified areas of the river bank.

Another plus for the game is its very high suitability for solitaire play. Although not designed for solitaire use, the lack of hidden movement options and the undetermined length of each day/night turn make the game far more amenable to solitaire play than the bulk of two-player wargames. A large number of our playtests have been generated by solitaire players who are quite enthused by its potential for entertaining solitaire play.

Aside from the game system itself, *TURNING POINT: STALINGRAD* is enhanced by an extremely attractive components package. The biggest problem we had with *THUNDER AT CASSINO* was compressing its map area enough to fit into 22"×24" format for a mounted board. The result was half-inch counters and a different scale insert of the town which detracted from the overall aesthetics of the map. This game has no such drawbacks. The counters are the large ⅝" type and Charlie Kibler has painted one of his best maps yet using German aerial photos as his guide. The resulting 16"×44" mapboard is one of the most striking and accurate maps in existance.

TURNING POINT: STALINGRAD has been playtested extensively with over 100 test games reported to date by extremely enthusiastic and talented groups of "blind" testers. And while opinions vary as to the favored side from group to group, all seem to agree that this is a very unusual and exciting game.

LOST IN THE FOG
Increasing the Info Gap in Wargames
By Brent McKee

During the charge of the Light Brigade at the Battle of Balaclava, a French general commented, *"C'est magnifique, mais ce n'est pas ce guerre."* At the time he was commenting on the foolhardy, unquestioning courage of Lord Cardigan and his cavalry troopers. The same statement, applied for different reasons, holds true for wargames. Despite all the care and hard work that goes into the design of a wargame to make it accurately reflect the historical realities of a situation, games cannot reproduce reality. Wargames may be magnificent, but they are not war.

I am not speaking here of the most obvious differences between our games and the reality of war. Our cardboard legions do not bleed. They are faceless. But hopefully our purpose in wargaming, or "combat simulation" if you will, is not the glorification of war. Our interest is, at the very best, to gain a better understanding of events that have affected our world in a more effective way then can be achieved through reading a book or seeing a film. At its most innocuous, wargaming provides us with a few hours of relaxation in which our decisions can influence the destiny of nations . . . if only in our imaginations. What I am interested in is the degree of reality that we are able to achieve, particularly given what the mechanical systems in wargames cannot re-create—the oft-discussed "fog of war."

In order to fully understand the problem of the fog of war, we need to understand what our wargames *really* are. A wargame is nothing but a mathematical model or analogy, the components of which are intended to depict possible outcomes, modified by the presence of various elements, and leavened with a certain amount of chance. Because wargames are mathematical models, the mathematical analysis of wargames that often appears in The *GENERAL* is certainly valid study (no matter how aggravating such an analysis may be to many readers). Theoretically, the mathematical model could be carried to the point where a battle to the finish between two comparatively equal nations could be accurately depicted on a two-hex map with two counters in a single turn. It could be done, but it would be boring. Wargamers want the ability to maneuver their troops, to search for a place to break through—in short to behave like the commanders of real armies. Unfortunately, while the mathematical model does an excellent job at re-creating most of the hard facts of battle (equipment, manpower, and the effects of terrain), it is unable to re-create the intangible factors and indeed often serves only to eliminate them. It is these intangibles which taken together make up the "Fog of War."

There are many intangibles that cannot be factored, simply, into the mathematical model that makes up a wargame system. Most of these factors fall into the area of human dynamics: how people operate with each other and the manner in which individual decision-making processes functions. Much of this is complicated by the fact that we, as wargamers, have far more information available to us than our historical counterparts would ever have had in a similar situation. In addition, wargamers have much more centralized control over the units under their command than the historical commanders ever did. There are any number of historical examples with which these points may be illustrated.

Limited intelligence is recognized as an important factor in certain types of wargames. In most strategic naval wargames it is considered to be essential. Even a game as mechanically simple as *VICTORY IN THE PACIFIC* has a system with which the opposing players are kept from knowing each other's intentions. This is realistic. Even with modern reconnaissance satellites, the location and exact composition of fleets cannot be determined all the time; before satellites, the problem was even more pronounced. In tactical naval and air games, limited intelligence is less important, although given the speed of modern warplanes there is an increased possibility of accidentally shooting down friendly aircraft due to inaccurate identification. As well, there are a number of historical incidents where ships and aircraft have attacked friendly submarines in the mistaken belief that they were enemy ships. In most situations, however, this is a comparatively minor problem. In all levels of land wargames however, the inability of commanders on both sides to locate and identify and effectively assault the forces on the other side is both essential to create a truly accurate simulation of the situation—and is rarely attempted. Why is this, and how might this situation be remedied?

One of the major factors in the conduct of a battle is the inter-relationship between a commander and his subordinates. A fine example of this came on the first day of the battle of Gettysburg. At 6:00 pm, General Lee ordered one of his corps commanders to attack the Union forces on Cemetery Hill "if practical." Discretionary orders such as this had been effective in the past when given to Stonewall Jackson. Unfortunately, Jackson was dead and the corps commander in question was Richard Ewell, who had none of Jackson's flair. Ewell did not believe that the forces immediately available to him were adequate for a successful attack on the hill. Ewell waited for reinforcements. While the Confederate forces came up, however, Union reinforcements also arrived. When Ewell finally felt strong enough to attack, the Union commander had strengthened his position to the point where an attack would fall.

The problem inherent in this particular situation should be fairly obvious. In a game such as *GETTYSBURG* (regardless of the incarnation), a single player represents *all* of the senior Confederate officers. Therefore the player, as Lee, will "order" the attack on Cemetery Hill and carry it out. The dissenting opinion, Ewell in this case, is effectively cut out of the decision-making loop.

Compounding the unreality of this situation is the amount of information that the Confederate commander in a game situation would have in comparison with what his historical counterpart would have had. A historical commander could be sure of little, beyond the strength of his own units and where the enemy was. In our games, all a commander needs to do is to look at his opponent's counters and make a few mental calculations to determine the feasibility of an attack.

There are a number of solutions to this sort of problem. Most wargames suggest the use of subsidiary commanders to involve more people. The problem of information remains. A commander in any given area might have more knowledge about that area than an overall commander, just as Ewell felt that he had more information on which to make his decision concerning a possible attack on Cemetery Hill than Lee did. The conventional solution to this question of information, if any is used at all, is to use covered or inverted units, and to only reveal information when an attack occurs.

A further aspect of the information problem is the anxiety caused by not having enough information.

During the 1973 Yom Kippur War, the Syrian army on the Golan Heights broke through the Israeli lines and was moving toward the Jordan River crossings. The Israelis had no defenses between the Syrians and the river crossings. Just at the edge of the Golan Heights, the Syrians suddenly stopped. During the night, the Israelis managed to move defensive forces into position. When the Syrian attack resumed, the Israelis were able to throw it back. Later in the war, the Syrian commander was captured and interrogated. When asked why he had stopped the attack when he did, the Syrian general replied that it had seemed like the obvious place for the Israelis to mount a defense. Had the Syrians continued to press forward they would have reached the crossings. However, what if there had been a defense in the place where the Syrian commander had expected one to be? Pressing forward might well have caused his command to be decimated, while the action that he took would probably have saved it. If the Syrian commander erred, it was on the side of caution.

In most game situations, of course, such a thing could never happen. Not only do players usually know where every unit, both friendly and unfriendly, is, they also know when and where reinforcements will arrive. None of the concern felt by the Syrian commander in the Golan Heights is felt by the wargamer. He can see where defenses are, analyze their weak points and push his way through. Yet this is not realistic. Lack of knowledge about the enemy's position, as much as any information about them, shapes the sort of decisions made by real-life military commanders.

One aspect of warfare that should not be dependable is when and where units will arrive. The definitive example of this concern Blucher at Waterloo. Wellington could not know then the Prussian Army would arrive, while it was an essential part of Napoleon's planning that Blucher not arrive at all. It is unrealistic for all units to arrive precisely on schedule. It is even more unrealistic for one side to know when and where the other side's units will show up. In strategic situations, the very existence of units might be in doubt. In the period before the invasion of Normandy, the Allies deployed what the Germans referred to as "Army Group Patton" in England. German signal intelligence and other assets proved this. In fact, Army Group Patton was made up of headquarters personnel, communications personnel, and inflatable rubber vehicles. The myth of Army Group Patton kept the Germans from shifting their forces to the defense of Normandy until the beachhead was established. One of the best things to come from role-playing games is that the various menaces do not show up on schedule but come apparently at random. It is something that should be more common in conventional wargames.

Even the terrain can contribute to the problems a commander has, in a number of ways. Unfamiliar terrain can cause a great deal of difficulty, with units straying as well as creating anxiety among the commanders. During the British attempt to escape the German encirclement that led to the Dunkirk evacuation, maps were extremely scarce. They were so scarce in fact that some tank squadron commanders had no maps at all. At least one officer was equipped only with a *Michelin* tire company map that he had bought privately. A more common problem relating to the effects of terrain concerns Lines of Sight. On the second day of the battle of Gettysburg, General Longstreet was ordered to move against the south end of Cemetery Ridge, but to do so without alerting the Union Army. As he

moved south however, Longstreet's engineers reported that there was a signalling station on Little Round Top that might be able to see his movement. They suggested that Longstreet's corps retrace its steps and then move south through an area that was not visible from Little Round Top. This movement took a great deal of time and by the hour that Longstreet attacked, there were Union soldiers on Little Round Top. Yet, unless Longstreet wanted his movement discovered prematurely, there was nothing else that he could do.

Most wargames do not introduce hidden movement, presumably because it is difficult to use even for the moving side. Arguments arise over when a unit is in sight, for example. Many tactical games, such as *SQUAD LEADER*, have some sort of rule to restrict artillery fire to locations that can be seen either by the artillery unit itself or by some sort of forward observer. Why shouldn't the possibility of moving without exposure be considered as well?

Most of the systems proposed to create limited intelligence are handicapped by being too time-consuming and difficult to implement. The use of inverted units, for example, prevents both the opponent *and* the owner from knowing the strengths of their forces. Thus instead of merely glancing over his own units, the player is forced to check his units individually. Inserting a Gamemaster between the two players in a face-to-face situation is often not practical because it requires three copies of the game, separate rooms and written orders. The same problem of practicality applies to the use of multiple commanders; it is often not practical in a face-to-face game, as well as giving each of the commanders more information than he would have in real life. Hidden units and hidden movement would cause problems of bookkeeping and potential conflicts over *when* a unit becomes visible. In short, the whole thing seems to be more trouble than it is worth.

The easiest aspect of the Fog of War to implement is to make the arrival of reinforcements less dependable. This can be done simply, by using a die roll. On a roll of five or six, for example, a unit or group of units would arrive one turn after it is scheduled to. Any units that would arrive at the same place on the next turn would also be delayed by one turn. This would not only simulate the initial delay, but also the "traffic jam effect" such a delay would create. In strategic games, blank counters could be used to keep the exact number of units still available secret.

Probably the best way to limit the information available to players is through the use of a Gamemaster. As has been stated previously, Gamemasters are not practical in most face-to-face situations. It is, however, eminently practical to use a Gamemaster in a play-by-mail situation. By using a Gamemaster, various restrictions on the amount of information available to the players can be introduced. Obviously, the Gamemaster is able to keep the players from knowing what units are facing them, or even knowing who the other player is. In addition, the question of reinforcements takes on new aspects, as the Gamemaster does not have to tell a player where and when, or even if, his opponent's reinforcements have arrived. Hidden movement, and the possibility of units waiting in ambush, can be handled more readily through the use of a Gamemaster than they would be in a face-to-face or a conventional play-by-mail situation.

Possibly the most interesting use of Gamemastered play-by-mail, is the comparative ease in which divided command can be implemented. In a game of *GETTYSBURG* for example, command of the Confederate forces could be divided into the three historic corps, with a fourth player being the supreme commander. Each corps commander would have complete knowledge of the name, location and

UPGUNNING AN OLD WARRIOR
AFRIKA KORPS for Everybody
By Richard Gutenkunst

The 25th anniversary of The *GENERAL* is a good occasion to recall another one. *AFRIKA KORPS* will be 25 years old in 1989. I still have one of the original copies published in 1964. These are distinguished by green backs on the counters—but more important, the Axis player doesn't have to roll the dice for his supply units to arrive! Since then, the Axis supply rules have changed, but other than occasional rule clarifications, ol' *AK* has remained unmodified since its conception.

I believe *AFRIKA KORPS* belongs in everybody's game collection. Even if you can't stand the game and think it's too simple or inaccurate, it remains perhaps one of the easiest means of introducing a newcomer to the hobby. The rules are simple, the game can be quickly set up, and there are a minimum of counters to shove around. Time enough to introduce more complicated games to the recruit once he's hooked.

However, after 25 years it is probably about time for a "tournament level" *AFRIKA KORPS*. Games have become much more complicated since *AK*'s inception; so why not make some concessions to those who find it too simple in this day and age? For those who are willing to try anything, may I suggest a tournament version for *AFRIKA KORPS'* twenty-fifth birthday?

One direction to go would be to change the starting positions and situation. I have always thought the mechanics better suited for the Gazala situation in early 1942. Several sources contain the British positions at that time, so research shouldn't be a problem for the budding designer. One suggestion if you are looking to set up the Gazala situation and need to get it balanced. My article "Desert Deception" (Vol. 18, No. 2) counter set is still available [*for $2.00 from Mr. Gutenkunst*] and I find that many people are using it as a counter source for their own variants. For the Gazala battles, you may want to substitute the new *90/155* (2-2-10) unit for the original 90/55; add the *sv 288* (2-2-10) and *GG FF* (1-1-6) units; add the *San Marco* (0-1-3) unit at Benghasi; and lastly, add either or both *III 225* (1-1-4) and *GaF* (0-1-3) at the Axis Home Base.

Another approach is to add rules to make the game more challenging and interesting. As an example, let me explain one or two that I find particularly intriguing:

The first concerns the 88s available to the Axis army in North Africa. They did not quite have them hanging from the rafters in each and every bunker as some would have you think. In fact, one source states that the Germans only had 35 available when the "Crusader" campaign opened; some 23 were dug in at the frontier positions and 12 were with the two German panzer divisions. For game purposes, we can give a good representation of 88 availability by considering only the elements of the 15th and 21st Panzer to have them. For game balance, you may include or exclude the reconnaissance battalions in this as you wish. The Axis player may also designate one other unit as an "88 unit". He indentifies this unit on the back of an index card which is kept face down on the playing table until verification is needed. 88s were also given to the Italian "Ariete" and "Littorio" divisions, but not until 1942.

So why do we want to establish which units have 88s? Because the 88 AT was the only gun in the

Axis armory that could adequately deal with the British Matilda and Valentine tanks. Though much slower than the cruiser tanks, their heavier armor made them a tougher opponent and they were much respected by the Germans. However, were the two Matilda units in the game—the 1st and 32nd tank brigades—are given a mere two points each in combat factors! These units contain as many tanks as the 4-4-7 units; and since the Matilda is a tougher opponent than the tanks contained in the 4-4-7s, the "2-2" combat factors can only be accounted for by assuming that they run into 88s in all their battles. This was obviously not so. It is very simple to rectify this gross error—all you do is triple the combat factors of the 1st and 32nd, unless they are involved in combat with an enemy unit containing 88s (as noted above).

In addition to the 1st and 32nd being upgunned, the 23rd Armored Brigade was a pure Valentine unit. Tripling its combat factors might be a little optimistic, so I suggest doubling them unless the unit faces 88s.

Now we can look at how such a simple variant rule affects strategy and "improves" the play. It does no good for the British player to stick the 1st and 32nd in Tobruk because the Axis play will use 88-armed units against them. However, the Brit now has an attack force he can use to chip away at the Axis position every chance he gets. He now gets to put his offensive skills to work instead of running throughout the game.

The one unknown unit containing 88s is, however, going to put a real brake on British ambitions. You might have a more predictable game without this joker in the deck, but it does simulate history. The British were never sure where they were going to run into the dread 88s. To counter this aspect of the upgunned game, you might want to establish a "recon-in-force" rule. Simply put, the attacker accepts an automatic "D Back 2" result, but the Axis player must reveal whether the attacked unit contains 88s or not. I suggest minimum odds for the attacker to accomplish such a recon be set at 1-1. The disadvantage that the British player risks for this information is the fact that the Axis player could put his attacking unit(s) in a very vulnerable position for exploitation on the next Axis move.

(If this rule really intrigues you, go whole hog on the unknown 88s. The panzer units do not necessarily have the 88s; all Axis 88 units start out unknown to the British player. Choose the number of 88 units according to how many you feel would balance the game best for your style of play.)

Should the Allied player hardly be able to wait to use his Matildas, bring on the *32* (2-2-7) in June 1941 instead of the *7/4* (4-4-7). The 32nd tank brigade did not come into existence until mid-September of 1941, but its Matildas arrived in June and were given to the 4th Armored Brigade. Upon the re-equipping of the 4th with Stuart tanks, the Matildas were given to the 32nd. You get the historical tank configuration if you bring on the 32nd in June and the 4th in September.

Yes, but you were so depending on that 4-4-7 to defend Tobruk, right? Time to raid the "Desert Deception" counter set again. This time we use the *9A* (4-4-6) substitution counter and the Australians' undeniable talent for defending Tobruk. Any group of Australian units are eligible to be replaced by this

counter, so long as they total four combat factors and are in the same hex.

At this point, the British have been given a considerable advantage, so we have to give something to the Axis player to counterbalance it. One thing we could do would be to give back to the Axis the original supply rules—that is, a supply unit every turn. *Or* we can do something about those 7-7-10 panzer regiments.

In reality, the panzer regiments were much more formidable than represented! However, not in raw power. What the Germans had going for them was tank repair. The Germans could typically repair their KOed tanks in the field while the British had to haul theirs back to Alexandria. To simulate this, I suggest using the Axis *Captured Supply Unit #5*. In most circumstances, it won't be used as a supply unit—so we'll use it as a "wreckage" counter. When a panzer regiment is destroyed, it is replaced by the upside-down wreckage counter. The next time the Axis player begins his turn, it is placed right-side up. The wreckage counter cannot be moved, but the second time the Axis player begins his turn replace the wreckage counter with his once-defunct panzer regiment (that is, if the British player hasn't destroyed the wreckage in the meantime). Historically, the British had to get in among the wrecks with thermite bombs to be certain the panzers were finished off. Of course, a certain percentage of the German tanks will be unsalvageable, so this rule will have to be limited in its application. Using it once or twice a game should be enough to balance the game.

These variant rules are suggested as fun additions to *AFRIKA KORPS*, and have been described in the barest detail. Modify them so you understand them and they work best for you and your friends. After all, it's your game and the whole idea is to enjoy it for another 25 years.

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COMPUTER CORNER

UNDER FIRE

By John Huff

UNDER FIRE is a tactical-level computer wargame on the same scale as the famous *SQUAD LEADER*. The original version was written for the Apple II by Ralph Bosson. Subsequent versions have been written for the Commodore 64 and IBM PC.

Play of the game is simple and menu-driven, with the orders entered via keyboard or a joystick. The original game came equipped with three maps (called "Lion's Ridge," "Shadow Valley" and "Demon's Maze") and the maps themselves cover a range of terrain from city streets to open country to a waterfront. Each map has provided for it three scenarios—one attack/defend type, one breakthrough, and one meeting engagement. In addition there is the option of writing your own scenarios and (with the *Mapmaker* disc) creating your own maps. The game comes with American, German and Russian infantry and armor types. "Extended" discs provide the Italian, British and Japanese OBs.

Maps can be displayed in three modes: situation, strategic or tactical. During game play, any units within line-of-sight of your squads will be displayed and can be identified from the strategic or tactical maps. Realistically, LOS is not symmetrical. For instance, if an enemy squad is hiding behind some vegetation some distance away but your squad is exposed, you most likely will not see him—though he probably will see your squad. The same is true in the reverse case. This adds quite a bit of tension to game play. The situation map displays call upon the entire map area and flashes the objective; this is important if you actually intend to win the game, rather than just "kill bad guys."

Units in motion are impeded or helped by the 11 specific terrain types. These include woods, roads, hilltop, walls and whatever else is appropriate to the scenario. Terrain will also affect LOS, and the LOS option can be used to "test" various locations to see if a location where you suspect the enemy to be is visible to one of your selected squads. So, if an enemy appears to have "disappeared from view," you can use the LOS function to gather more data.

Combat as well is very flexible with the options of posture (assault or defensive) and type of fire (direct, indirect, or area) provided, and can let units "dig in" to gain whatever advantage is possible.

UNDER FIRE was philosophically a departure from most computer games in the following ways:

1. It had *no* arcade element.

2. It simplified the I/O to free the player from worrying about the mechanics of running the computer, letting him concentrate on the tactical situation.

3. It used a set of values and an algorithm which closely simulates most (if not all) of the conditions met on the battlefield.

4. It can be played over and over with no visible guaranteed way to win.

5. It does not "cheat" to achieve these results.

Many players have contacted us about how much they are entertained by the game. In fact, few people find any major omissions to detract from its value as one of the best combat simulators out for home computers. As the person who reviews new submissions, I have not seen anything since we first released *UNDER FIRE* to even begin to compete with it. The *Mapmaker* and *Expansion* discs only made it all-encompassing.

Now, having said all this, it should be realized that nothing is perfect. The surprising thing is that the problems and bugs (read that "undocumented features") are so minor and so few and far between as to be unnoticeable in the scope of the entire game. Any true fan of *SL* or WW2 tactical warfare can overlook these.

In the next issue, I will regale you with the long, and sometimes painful, process of turning a germ of an idea into a finished computer game.

For this spring and summer, we have some exciting new products—as well as expansions and conversions for some existing products. Readers of The *GENERAL* will already be aware of the release of *POLICE BLOTTER* (advertised elsewhere in this issue); it is currently available for the Apple II and soon to be released for the IBM PC and Macintosh.

Combots is to be a real nuts and bolts game. A tactical game where you use your giant armored machines to destroy enemy robots and their base stations. Extensive campaign orientation gives you the freedom to design your own machines and the devices they use. You repair and modify your machines using new parts, or components salvaged off damaged machines in the field. Players each get a team of two combots to control, and can play against the computer, against another opponent, or against both in a three-player game (two human and the computer) at once. Available this summer for the Commodore 64.

UNDER FIRE Mapmaker is a unique program which gives the enthusiast the ability to simulate any terrain and to widen the scope of the game. From the Black Forest to Guadalcanal, you now have the ability to stage battles anywhere they might have occurred in World War II. Available this summer for the Commodore 64.
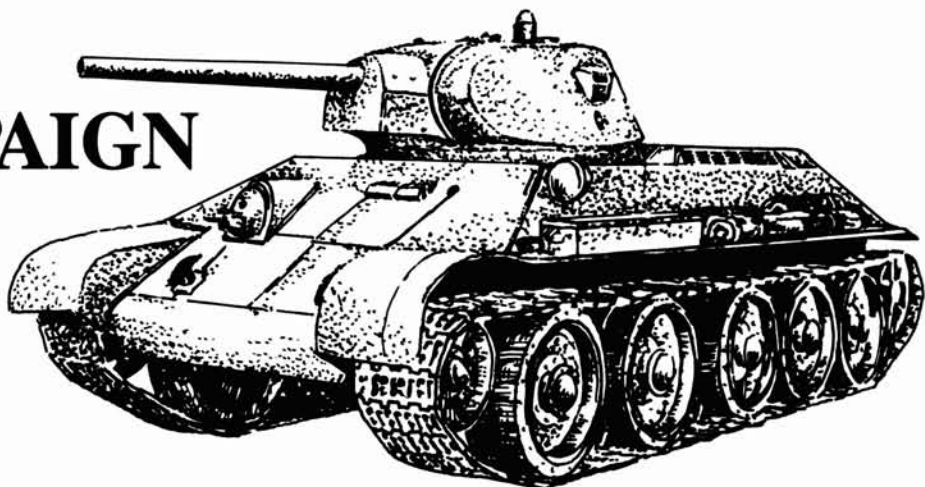
New Season Disk for *NBA*—the expansion disk for the popular basketball simulator. This covers the 1987-88 season and should give the basketball fan as many hours of enjoyment as the original. Available this summer for the Apple II, IBM PC and Commodore 64.

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A NEW CAMPAIGN

THIRD REICH—1941

By Larry Bucher

I don't think many players will ask, "Why? What for? Who needs a 1941 scenario?" But in case someone should, let me put forth two reasons.

First, what percentage of *THIRD REICH* games follow even a minimally historic course, defined as: France falls first and Russia is invaded in Spring or Summer 1941? It's a guess, but I'd venture to say well under half, whether due to poor play, ahistorical strategies, or whatever. And it is a real rarity for the game situation in 1941 to reflect history in the Balkans and Africa at this point—rare enough that I have never seen or heard of such a game.

Second, opening strategies and tactics for 1939 have been studied to exhaustion (although certainly not settled to perfection). The titanic collision between Russian and the Reich has, by contrast, received a good deal less attention. While I doubt that any hard-core *THIRD REICH* player would actually own up to being *bored* with the Western Front in 1939-40, there may well be a few who would prefer to spend a little more mental energy on other facets of the game. And although the 1942 scenario does allow Germany and Russia to tangle immediately, *Barbarossa* it is not.

The German invasion of Russia can, however, start on the first turn of my 1941 scenario if desired; but the German player faces Hitler's much-debated decision: lambast Russia without delay and let the Balkan flank dangle; or take a turn to chastise southern nuisances and let Stalin wait until summer, growing stronger? Or perhaps some sort of compromise—a bit of both? In this scenario, players at last have to face that burden of strategy.

A couple of "designer's notes" for the readership to debate. At first glance, B26 would be a more logical hex for the Allies to control than is AA27. But the Greek requirement to set up adjacent to Italian hexes could then have placed Greek units in AA28. This would have allowed too many barriers to a potential one-turn blitz on Athens, and hex AA27 is not unreasonable. Crete's special status, and the German ability to set up in Italian territory, are my effort to give Crete the importance it enjoyed in 1941, and to permit a repeat of the historical paradrop if desired by the Axis player.

I believe that opening deployments for this scenario promise to be nearly as varied and as open to argument as those of the 1939 one. Only Russia has no problems to face that are peculiarly new. With Britain enjoying last-setup advantage, the Axis recipe would appear to be to pose as many different threats as possible. I've a few observations:

Italy can have an invasion force threatening to sail. If the spare 2-5 is aboard, it can instead be sea transported to Tripoli to serve as an exploiter. German armor in Italian ports also would enjoy this potential. Italian fleets in once-comfy Taranto are not safe from air attack if Greece does not fall; Naples will be much more secure for the Duce's fleet. A potential trap exists for Italy (and Germany as well) in Albania—British armor, set up in AA27, can isolate the north and south hexes of Albania, and Britain has a cheap 2-5 armor to risk on such ventures.

A German invasion force in Kiel can threaten *Sealion*—but could instead divert to Konigsberg or invade the Baltic States. Air units in Graz and Trieste can pose a triple threat to Britain, Russia and Greece. Armor on the Hungarian border menaces both Russia and Belgrade. Armor in Bulgaria can be switched north against the Soviets or can provide the main punch for an attack on Greece. Remember that an Axis DoW on Yugoslavia will allow some Yugoslav units to be placed in Yugoslavia's southeast corner. And watch that 20-factor limit in inactive minor allies!

Placement of the German airborne unit offers a variety of interesting options. On Rhodes (with an airbase counter, and a supply fleet inverted in Italy), its potential targets include Alexandria, Tobruk, Crete, Cyprus, Athens and its approaches, and even—if the German gets carried away—Ankara and the Turkish Straits. From Brindisi, the paratroopers can reach Athens and its approaches, Malta, and Belgrade. Now for the drawback: if dropped anywhere it can't be SRed back from, it is not going to be available against Russia until Fall at the earliest.

Britain's advantages in setting up last are offset somewhat by the stringent deployment limits I imposed. Despite foreknowledge of the Axis dispositions, there are likely to be a lot of threats to counter with too few units. Should Britain make *Sealion* inadvisable? Or make it just tempting enough that Germany might try and fail? Maybe the British should put an extra unit or two in Greece? Abandon Cyrenacia or defend it? Fleets will probably be needed at Malta and Port Said for invasion defense. If five fleets stay at home to deter a German invasion of England, only one will be left for Gibraltar and SR capacity to Egypt/Greece is going to be minimal unless some fancy and successful base changing is done at the start of the Allied turn. And Churchill *wanted* the job . . . ?

I think that most *THIRD REICH* players, even those jaded by the 1939 scenario, will find much to the situation in 1941 to keep their attention. Many interesting, *historical* choices are posed, yet the few new rules are simple and straightforward. I will be most interested in hearing players' thoughts on the scenario, and on its strategy.

SPECIAL RULES for the 1941 THIRD REICH Scenario

1. Axis forces always move first on the first turn.

2. No 1941 YSS, except for British and German SW builds.

3. *Vichy inactive*. Place in European France/Corsica: five 2-3s, one 9-factor fleet; in Tunisia-Algeria-Morocco: one 2-3; in Lebanon-Syria: one 2-3. Axis units may not be placed in the colonies during opening setup; Rule 49.3 governs thereafter. Activation/deactivation attempts may begin in Spring 1941.

4. Intervention and Alliance have already taken place in Greece. Greek units *may* be initially placed in AA27. At least three Greek 2-3s *must* set up adjacent to the Italian-controlled hexes of Albania.

5. Contrary to Rule 22.7, Greek ground forces may leave their country. They must stay in the Balkans (or Greek islands), however, and may go no further north than hexrow X.

6. Crete is treated as an objective "hex". Unless all three Cretan hexes are controlled by the same player, however, it counts for neither side.

7. Contrary to Rule 24.2, Crete does not pass to Axis control when Athens falls (all other Greek islands do). The hexes become uncontrolled unless/until physically occupied.

8. Contrary to Rule 3.36, German units may (with permission) initially be set up in all Italian-controlled territory except Libya.

9. Italian units may not start the 1941 scenario in "lent" status.

10. The United States is handled in exactly the same manner as in the Campaign Game.

11. The scenario may be lengthened by agreement among the players, to extend to Winter 1944 (using the 1942 scenario Victory Conditions) or to Summer 1945 (using the Campaign Game Victory Conditions).

12. The following variants are inapplicable: Axis #5, #12, #18; Allied #1, #2, #3, #11, #12, #14, #16 and #17. (Axis variants #10 and #14 and Allied variant #7 are also void unless a duration longer than Winter 1942 has been agreed upon.)

On the following two pages (24-25) are the Scenario Cards for the four major powers in Mr. Bucher's variant. Aficionados may wish to photocopy these on sturdier stock for extended play. Readers will note that there are no cards included for the United States or for France, one having been eliminated and the other not yet in play

VICTORY CONDITIONS for 1941 Scenario:
MULTI-PLAYER

	UK/US	Germany	Russia	Italy
Stalemate	9	21	7	3
Marginal	10	22	8	4
Tactical	11	23	9	5
Decisive	12	24	10	6

TWO-PLAYER

	Axis	Allied
Stalemate	24	16
Marginal	25	17
Tactical	26	18
Decisive	27	19

☆

Italy

1941 BRP: 80
Growth Rate: 20%

100's	O	1	2	3	4	5	6	7	8	9
10's	O	1	2	3	4	5	6	7	8	9
1's	O	1	2	3	4	5	6	7	8	9

Duration: Spring 1941—Winter 1942

Situation: Germany and Italy are at war with Greece and Britain. Russia and United States are neutral.

Order of Deployment: Greece, Italy, Russia, Germany, Britain.

Deployment Limits: At least two 2-3 Infantry units and two 1-3 Infantry units in Albania; at least one 3-3 Infantry unit, three 1-3 Infantry units and one 2-5 Armor unit in Libya.

Control: Sicily, Sardinia, Albania (less hex AA27), Libya west of (not including) hexes MM19/NN19, Rhodes.

Notes: Axis moves first in Spring 1941. Only SW builds allowed in 1941 YSS. SR Limit: 5 (see 16.1).

1941 Force Pool:

At Start:

2-5	3-3	2-3	1-3	9	5-4
•2	•2	•4	•6	•5	•2

Allowable Builds:

1
•6

1942:

2-3	9
•1	•1

U.S.S.R.

1941 BRP: 120
Growth Rate: 30%

100's	O	1	2	3	4	5	6	7	8	9
10's	O	1	2	3	4	5	6	7	8	9
1's	O	1	2	3	4	5	6	7	8	9

Duration: Spring 1941—Winter 1942

Situation: Germany and Italy are at war with Greece and Britain. Russia and United States are neutral.

Order of Deployment: Greece, Italy, Russia, Germany, Britain.

Deployment Limits: The following units must start at and not move from the stated cities until at war with the Axis and Axis ground unit come within five hexes of the city in question:
Leningrad: one 2-3 Infantry unit
Moscow: one 3-5 Armor unit
Odessa: one 1-3 Infantry unit
Kharkov: one 1-3 Infantry unit
Grozny: one 1-3 Infantry unit

Control: East Europe (east of Partition Line).

Notes: Axis moves first in Spring 1941. Only SW builds allowed in 1941 YSS. SR Limit: 6 (see 16.1).

1941 Force Pool:

At Start:

3-5	3-3	2-3	1-3	9	5-4
•6	•5	•10	•15	•3	•3

Allowable Builds:

1942:

4-5	3-3	2-3
•4	•15	•2

Germany

1941 BRP: 210
Growth Rate: 50%

100's	0	1	2	3	4	5	6	7	8	9
10's	0	1	2	3	4	5	6	7	8	9
1's	0	1	2	3	4	5	6	7	8	9

Duration: Spring 1941—Winter 1942

Situation: Germany and Italy are at war with Greece and Britain. Russia and United States are neutral. German Minor Allies have not been activated.

Order of Deployment: Greece, Italy, Russia, Germany, Britain.

Deployment Limits: Fleets may not start in Mediterranean/Black Sea. May place units in Axis Minors (under usual 20-factor limit). May place units in the Murmansk box during opening setup. May place units in Italian-controlled territory with Italian player's permission.

Control: Norway, Denmark, Netherlands, Belgium, Luxembourg, Poland (west of Partition Line), France.

SW Surplus: 6 U-boat factors.

Notes: Axis moves first in Spring 1941. Only SW builds allowed in 1941 YSS. SR Limit: 9 (see 16.1).

1941 Force Pool:

At Start:

4-6	3-3	9	5-4	3-3
•7	•24	•4	•4	•1

Allowable Builds:

4-6	3-3	1	5-4
•5	•4	•8	•2

1943:

5-6
•2

1944:

4-6	3-3	1-3
•1	•3	•6

Britain

1941 BRP: 140
Growth Rate: 40%

100's	0	1	2	3	4	5	6	7	8	9
10's	0	1	2	3	4	5	6	7	8	9
1's	0	1	2	3	4	5	6	7	8	9

Duration: Spring 1941—Winter 1942

Situation: Germany and Italy are at war with Greece and Britain. Russia and United States are neutral.

Order of Deployment: Greece, Italy, Russia, Germany, Britain.

Deployment Limits: At least one 1-3 Infantry unit in Malta; one 1-3 Infantry unit in Gibraltar; one 1-3 Infantry unit in Transjordan/Patestine/Iraq; one 3-4 Infantry unit in continental Greece; one 3-4 Infantry and one 4-5 Armor unit in Egypt/Libya; and at least three Replacement units in Britain/Ulster.

Control: Iraq, Palestine, Transjordan, Cyprus, Egypt, Libya east of (including) hexes MM19/NN19, Malta, Gibraltar, Greece, and hex AA27 of Albania.

SW Surplus: None

Notes: Axis moves first in Spring 1941. Only SW builds allowed in 1941 YSS. SR Limit: 7 (see 16.1).

1941 Force Pool:

At Start:

4-5	2-5	3-4	1-3	9	1	5-4	2-3
•2	•1	•4	•3	•8	•3	•2	•1

Allowable Builds:

4-5	3-4	9	1	5-4	2-3
•1	•1	•1	•3	•2	•1

Summer 1942:

4-5	3-4	3-3	9
•1	•1	•1	•1

Squad Leader Clinic

GUNS VERSUS TANKS

By Jon Mishcon

One of the recurring lessons of World War II was the need for almost any "gun" to be capable of direct anti-tank fire. Historical texts are replete with examples of "indirect fire" weapons being used to stop a breakthrough or support an advance when nothing else was available. In fact, a whole class of Soviet AFVs are nothing more than an armored box for carting around an artillery piece. *ASL* play will also force players into using any and all available weapons, on occasion, as AT guns. This article deals with how we look at Guns (C2.1) in their anti-tank role, whenever we see a scenario for the first time.

Let us assume you have signed up for one of our *ASL* tourneys, or perhaps you've decided to play a DYO game. Out pops the new scenario. You get an AA gun and an ATG. Your dastardly opponent gets a bunch of metal monsters. All too frequently, tournament players stick their Guns in clumps of woods, often spread out just behind their front line, and wait for opposing armor to blunder into range. Players can improve their play (and chances for winning) by developing a framework for Gun use prior to playing a new scenario—a system that should apply in most scenarios regardless of map configurations and victory conditions. This article describes our method. Naturally, once you dissect any published scenario, there is almost always a *preferred* Gun placement that is contrary to the notes below. Nonetheless, detailing the manner in which we approach a new scenario may help readers in their own approach.

We tend to divide Guns into categories. Mortars all by themselves, as they always use the Area

Target type. Next we check for HE-only or AP-only weapons, or just any "important" Guns. Then we look for more potent weapons, perhaps with Special Ammunition available (APCR/APDS/HEAT/SMOKE). Lastly we check out the Manhandling numbers.

If on the offensive, we divide our force into a maneuver element and a "stand and shoot" group. As Guns are so potent, we amost always try to use them as a firebase. The focal point for our attack is usually determined by what axis we can bring the most firepower upon. Much of the time Guns will be the major determinant of firepower availability. This is wonderfully historical. However, as it is rare that the attacker is forced to destroy defending AFVs with Guns, I'll save attack tactics for another article.

Much more commonly, if you've got the Guns, you'll be on the defense. The first thing I do is divide up my defense into "zones". Mentally I break up the mapboard into three areas. Let's call them: *Goal Line, Main Line of Resistance,* and *Front Line.* The Goal Line is the last two or three hexes (or hexrows) in front of your enemy's objective. This can include a building, exit area, or just your final hold-at-all-costs position. The Front Line is all the foremost *covered* hexes that you are allowed to set up in, plus all hexes forward. The Main Line of Resistance is, naturally, all those hexes in between. Gun placement is based on the category of weapon, considering each zone.

Mortars are easy to place. Unless there is an absolutely pressing need for their placement elsewhere, we always look for a covered position in the Goal Line area that is adjacent to an upper level spotting position. Mortars are very potent if you face

open-topped or very weak armored vehicles. Remember that, although they must use halved-FP on the IFT versus AFVs, mortars are always treated as Indirect Fire (C9.1). Thus, they receive a −1 if all AF are ≤ "4" and an additional -1 if OT. Furthermore, any K result is an automatic Shock or immobilization (C7.4 and 7.5). U.S. players, please don't forget WP. Even if the AFV has 8+ AF all around, as long as it is CE then WP can inflict a NMC (+TEM). Most of the time you'll get no minus modifiers. Nonetheless, the exceptional reach of a mortar (a "7" TH out to 36-hex range) and its wonderful ROF makes even a puny 81mm mortar intimidating.

HE-only and AP-only and the "doorknockers" are placed next. Our rule of thumb is to put these guys right behind the Front Line. Most of the HE-only Guns are 70+mm with good ROF, while the AP-only weapons generally have puny TK numbers. Any weapon (except perhaps an 88mm) may be seen as a "doorknocker" depending on your opponent's armor. Unless you are facing some "cheeseball" AFVs, no Gun is likely to make a dent in the onrushing armored horde. The HE-only Guns can be useful at long range, recalling that HE TK numbers aren't affected by range considerations. However, most of the time we use these guys to try for Deliberate Immobilization (C5.7). Deliberate Immobilization is most valuable when you can stop that tank in front of your line. Furthermore, the further forward your gun is, usually the more time the tank is likely to spend in your LOS. We always try to cover these upfront weapons with a couple of squads nearby, but cover is less important for the Front Line

Guns than is great LOS.

About six hexes behind, and usually slightly off to one side of, the Front Line weaponry is where we like to place our best Guns. These are the fellows that have a decent chance of penetration and *potentially* Special Ammunition. This is the Main Line of Resistance. Locate them in buildings or woods almost always; and always cover them with infantry in and around the position. When possible, use terrain that threatens to Bog (D8.2-8.4) AFVs to help cover your flanks. Try to set them up a couple of hexes behind walls or gulleys! Vehicles exiting such not only spend more time in your LOS, but are vulnerable to Underbelly Hits (D4.3). If you have more than one Gun, we urge you not to spread them too widely. It is far better to have two mutually supporting Guns than two independent targets. If there is a natural route for overrun, especially from the side or rear, then place a squad in that path (or adjacent, ready to use Street Fighting—A11.8).

Finally, we take into consideration the Manhandling number. When possible, try to set up those weapons with with a high Manhandling number either in or next to a road. I can't tell you the number of scenarios I've watched where bypassed Guns just sat around. Dragging guns around was a combat norm. Joe and I routinely prolong our ATGs once any tanks have bypassed them. Sure it's risky. However, it is one more threat the enemy tanks have to deal with. This works best if you've got a couple of extra squads to aid in shoving the iron pig down that road (note, no road bonus).

Tactically we follow a pretty consistent pattern, First we engage with long-range mortar fire. Any AFVs affected are often "mission killed", if not destroyed. But we recognize that the best one can hope for is to slow the rate of advance. Then we try to immobilize with our up front Guns before the tanks reach the Main Line of Resistance. Any immobilized tanks usually spend the rest of the scenario flailing at the Front Line Guns. They're not really "mission killed", but at least the immobilized vehicles can't affect the Main Line of Resistance troops. Those tanks that penetrate the Front Line are now caught. If they simply bypass the Front Line Guns, then the active weapons may turn upon the passing tanks' rear. If the tanks turn to outflank the Front Line Guns, then the Main Line Guns shoot to kill, *not* using any Special Ammunition, hoping for a flank shot. If the tanks simply move to overrun your Main Line of Resistance weapons, then the old last-ditch shot is taken using Special Ammunition. Given that a Special Ammunition TH DR greater than your depletion number is taken as no shot (C8.9), except for the purpose of breakdown, this may give you two shots to take out the closing tank. Finally, if the enemy tanks scoot past all your Guns, the final defensive tactic is to move the Guns out after them. Don't remind me about rear MGs on tanks and hazardous movement; I'm fully aware of these. Like I said above, this is a final desperate defensive tactic.

Note that I've said nothing about hooking up and towing the weapon in pursuit. Frankly, we've not found nor designed a scenario where a Gun can do more than hook up to run away. There are some mega-scenarios where relocation may be possible, but you'll never see one in a tournament. On the other hand, you are often required to unload a Gun during play. Pick a site with good fields of fire and nearby cover. Unload as soon as possible, and simply do not plan to hook up again.

Nor have I made mention of Gun Duels (C2.2401). Unless the circumstances are extraordinary, the threat to a Gun (usually a difficult target) is rarely the "quickie" shot. Our experience is that the owners of Guns grit their teeth, take the incoming fire, and wait for their own best shot.

As a final note, permit me to mention some of the tricks we use. First, don't forget that emplaced Guns may set up HIP even if *not* in concealment terrain, provided they start out of LOS of all enemy units (A12.34). This can be crucial to controlling a key road junction. Moreover, when placed onboard (due to the enemy coming within LOS) the unit automatically gets a "?", again even if not in concealment terrain. This may leave the enemy in doubt as to exactly what you've got (assuming you have more than one type of Gun). Second, read the Ordnance Notes carefully. For instance, the 3.7cm PaK 35/36 is only 30 BPV but it may have both APCR and HEAT. This means a critical shot can be taken with potentially three DR! Combined with a base ROF of "3", the 3.7cm PaK is often a good buy. Lastly, set up so that you open fire, when possible, with one weapon at 18-hex range. Table A12.121 makes fire at 17 and 18 hexes most desirable vis-a-vis retaining concealment when firing.

Guns, even if greatly outnumbered, can be instrumental in defeating an armored assault. Included on this issue's insert is one of our old *SL* tournament scenarios (from Vol. 19, No. 5 of The *GENERAL*) reworked for *ASL*. Hopefully this will give readers a chance to experiment with some of the concepts contained in this article.

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These notes continue the series of commentaries in the Clinic pertaining to the scenarios published with the previous installment of the column (Vol. 25, No. 2 in this case). The intent is to provide the *ASL* player with one of numerous possibilities for defensive setup, attacker initial placement, and basic tactical approaches for both. Having had several months to examine your own approaches to our Clinic scenarios, the reader can now compare his findings with our summation.

After Action Report—
The Cannes Strongpoint

GERMAN: Six AP mine factors in hexes S3, S4, S5, S6, R3, R4, R5, R6, R7 and Q7. One AT mine in hexes T2, T3, T4, T5, S2, S8, R8, Q8, P6 and P7. Wire in hexes S3, S4, S5, S6, R3, R4, R5, R6, Q2, P2, P5, O3, O4, O5, O6, N3, N4 and N5. The 2-5-7 Pillbox in R2, facing R1-Q2, holding five "?"; 1-5-7 Pillbox in R5, facing Q6-R6, with a 4-6-7 and LMG; 1-3-5 Pillbox in Q3, facing P2-P3, holding a single "?", 8-0 leader, 2-2-8 and LMG. Put a "?", 9-1, 8-3-8 and MMG in Q4. The 3-3-5 Pillbox goes in Q5, facing P4-P5, with 10-3, 4-6-7, 2-2-8, MMG and HMG. Put the last pillboxes as follows: 1-5-7 in Q6, facing Q5-P5, with ATG and crew; 2-3-5 in P3, facing P2-Q3, holding an 8-1, 2-28, HMG; 1-3-5 in O4, facing O5-P5, with two "?".

BINDERS

"Out with the old; in with the new." In short, the old style of binder for your precious copies of The *GENERAL* (those with the metal rods locked into a spring at top and bottom) are no longer available. As part of our expansion of Avalon Hill's magazine, a new binder was developed to hold the six thicker issues comfortably. Both higher and wider than the old version, the new binder makes use of the patented "Max-Text" post lock mechanism. This utilizes short, plastic posts to hold an issue firmly, without crimping or tearing the pages as occurred at times with the older style binder. Only the new binder is available, and may be ordered direct from Avalon Hill (4517 Harford Road, Baltimore, MD 21214) for $7.00 each (plus 10% for shipping and handling).

AMERICAN: I'm going to cop out and say that I like to put all four .50-caliber MGs on the second floor at N2 with a 9-1 leader and a 7-0 leader with a radio, and everyone else sets up on Board 4 out of LOS (except for one HS and a 8-0 leader with a radio in LOS, but deep). The reason I don't feel it is reasonable to give an exact set up is the order of placement: first, place German defending troops; second, place US forces; third, place pillboxes in LOS and within 16 hexes *and* the ATG with its crew remains hidden.

ATTACKER'S TACTICS: Knowing that time is precious, I'd suggest you'd better use your artillery to smoke the defender first. Then try to find the axis that isn't mined. Throw everybody in that line except for the holding force on the other board. Don't forget to use WP.

DEFENDER'S TACTICS: Do shift to meet the advancing Americans. Try to advance up on the last turn to hold the board 3 and 4 roads in LOS.

Hitdorf on The Rhine

GERMAN: Six mines in hexes T2, S2, R2, Q3, P3 and O4. Place the 8-0, 4-6-7 and LMG on the ground floor of M5. One 2-2-8 goes on the ground floor of M2.

AMERICAN: One 9-2 leader, HS, two 7-4-7s and a MMG in J1. The other 9-2, HS, two 7-4-7s and MMG in S1. Put the 7-0 with radio, and three squads in U1. Finally, the 9-1 and 7-4-7 in V1.

ATTACKER'S TACTICS: Use your German infantry to contain the U.S. player to two or three buildings and drive any MGs off the hills. Then put the radio in the halftrack atop a hill and call in OBA to soften up the Americans. Finally, use your tanks to knock the U.S. troops out of the one or two buildings you'll need to win.

DEFENDER'S TACTICS: You must get a MG up on one of the three heights you can reach, so you can impede the German advance. On the second turn, be aggressive and grab as much terrain as possible. If you can hold the German halftrack off the heights and allow your reinforcements to get into good defensive positions, you should be able to win.

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GUNNED-UP IN THE DESERT
A WEST OF ALAMEIN Adventure
By Mark C. Nixon

Anti-tank guns to the left of us; FFE to the right. There were minefields in front of us, and a Creeping Barrage was rolling across the desert straight for us. There we were, just me and Erwin Rommel in our MkIIIs, dueling with the Desert Rats. The armor in this tank felt mighty thin (I was accustomed to at least an "11" frontal armor) and there were no trees or buildings in LOS to hide in, no hills to cover our approach. I might have been worried about those ATGs, had we not already discovered them to be only 40Ls. Ha! Back in Russia we used to laugh at anything less than 75mm. Those puny shells would bounce off even the light armor of these MkIIIs. (Yes, in the *ASL* milieu I am a time traveller, for even though I am a conscript in this desert fighting, I have already fought *BEYOND VALOR* in *STREETS OF FIRE*, and against *PARATROOPERS, YANKS, PARTISANS* and even in *HEDGEROW HELL* country!)

We started our engines, but when I shifted into gear my roll was boxcars. Damned dust. I silently wished it were after 9/41 so this unforgiving machine would do what I asked of it. I changed tanks, scrambling with my crew into a brand new MkIII. I noticed Erwin impatiently drumming his fingers on the open hatch lid of his purring MkIII, trying not to look distracted while, to the rear, the repair crews seemed to heave a collective sigh as they picked up their tools to work on yet another immobilized tank. My second tank revved to life, and I managed a smooth shift to start moving. "Heh, heh, that's got it," I needlessly explained into my headset. But Erwin was already moving, so I jolted off to keep even with him. I wanted to remain side-by-side so our vehicle dust wouldn't ruin the new paint job on this MkIII.

CRACK!

"What was that?"

"Must have been a 40mm round. Pretty close too. It was a nice opening shot," Erwin replied.

"Nice opening shot?" I muttered to the crew. "Is this the stuff legends are made of?"

I noticed Herr Rommel was CE, but I couldn't imagine it, what with all that choking dust out there. And then he even dropped behind my tank to eat my dust. Well, so much for the legendary Desert Fox, I mused. How smart is a guy who pulls a stunt like that?

CRACK—CRACK—CLANG!

Wow, two more near misses and a hit! How fortunate that it bounced off my side armor. I noticed Erwin still CE, and with his turret frontal armor swung around to face the offending ATG. Hey, now that is a clever idea, but my crew was already swinging our turret. Can't be too concerned about the trim of our MkIII; that frontal turret armor might actually make a big difference if we're hit again.

CRACK—CRACK—CRACK—CLANG—CRACK—CLANG!!

Hey, how much ROF do those guys get anyway, and how much longer will we be out here before we can shoot back at that ATG? "Dummkopf," comes the reply from Erwin. "There are four ATGs out there. If you calculate their 3-ROF, Multiple Hits, Intensive Fire and Overrun Prevention possibilities, they can shoot at us for what seems like forever. Why aren't you making smoke?"

Making smoke? Who's he kidding? All I could think about was that if Erwin didn't move out of my dust and the enemy started shooting at him, we'd have to look up all those specifications to determine when that dust appeared/disappeared, what effect it had, and what would happen if the wind kicked

up or it started to rain. What would happen then? I knew the immediate effect would be that I'd have to start reading all those rules. But then I noticed something curious; something probably obvious to most commanders but, being a conscript, apparently outside the borders of my comprehension until forced within by the stress of a battlefield situation. *The enemy weren't shooting at Erwin at all!*

"This isn't fair," I screamed into my headset. The only reply was a chuckle from Erwin.

"Double Dummkopf, what did you expect? Why would the Tommies shoot at me while you are such an inviting target?"

But I wasn't listening. I was sorting through my manual for the vehicle dust specs. I had always considered VD something to be avoided at all costs. You can imagine my concern as I first debarked in North Afrika and was informed that in the open desert, VD follows us tankers around wherever we go—like the plague. The training films had not warned of this. Now this new interpretation certainly thrust new meaning into the conception . . . er, contraception . . . er, ah, into the idea. There—finally found it. "What," I screamed, "a +2 Hindrance DRM for dust? Now what do I do?"

One devious trick came to mind. I could slow down so that I no longer raised that screening dust for Erwin. Providing the enemy another target would be a very effective way to take the heat off myself, although in this case, since it was none other than the Desert Fox himself, it might not be my best choice. I could imagine the wrath this tactic would elicit from Herr Rommel; and since I didn't want him assigning me to ride point for our entire venture across North Afrika, I let this thought die. However, it was an intriguing idea and I carefully stored it in my memory for eventual use—like the next time I come out here with someone of lesser rank.

"Why don't you try your smoke discharger?" came the repeat request.

"My what?" I snapped back to attention from my reverie.

"Haven't you ever crawled underneath your tank and seen all those curious markings on the bottom side? One of those notes says 'sD7'. You can make smoke."

"Great; now you tell me. Why did you wait until the enemy's turn?" I was appalled to catch myself addressing the great general in this tone, but in the battlefield environment he didn't seem to mind.

"No problem. You can try it during their MPh."

"You're kidding. Is there anything else I can do?"

"Of course. See that Crusader entering play behind us, maneuvering for a rear shot?"

"Arrgh. I didn't see him. Where did he come from?"

"Well, first of all, if you had searched the order of battle card, you would have known he was coming; and second, you might even have a chance to hit him if you weren't buttoned up. At least if you missed with your shot you would have a chance to throw some Crew Smoke. At the very least, you can roll for Motion to change your VCA and swing your frontal armor toward him."

"But I'm already in Motion!"

"So what? You can roll anyway. Have you ever considered *reading* your manual? It may come as a SHOCK to you (hah, hah, did I scare you? . . . Just a little tanker humor), but until you are familiar with that manual, you will always be a conscript."

"Well, I think you've convinced me. But what do we do right now . . . surrounded, Acquired and outgunned?"

"We follow our instincts, as would any natural-born fighter in such a situation . . . we run away! This battle is lost, but we will try again later."

As we turned our tanks around, I became CE just in time to see Erwin button up. Now there's a clever fellow. He rides CE in my dust, but when we turn around so that I'm in his dust, he closes up. It was in that very instant of realization that I was hit with yet another inkling of what it takes to become a 10-2 armor leader. I had forgotten about the Creeping Barrage. Apparently Erwin had not. I was literally STUNNED by the manifestation. All I could do was watch Erwin successfully skate offboard, his turret swinging this way and that as he moved to face each anticipated enemy shot. "Sigh, what a guy."

Fortunately for me the barrage passed, and the British mysteriously withdrew. I was able to bring the crew back to their senses. We started up and drove off. As luck would have it, we returned to base with valuable information; at least Erwin seemed to think so. He hypothesized that the Tommies might be low on ammo or possibly have something else to hide. Why would they retire from a situation in which they had us so outnumbered if they had nothing to hide? Perhaps they were low on fuel? With that hope bringing a gleam to his eye, Erwin quickly decided to go after them. With a bit of luck they might lead us to a fresh supply of petrol. We loaded up immediately and darted off in pursuit. I was beginning to get the message that my conception of "desert training" was mere illusion. It was looking like the rule of thumb out here would be hands-on experience only. I was in the opening stages of mentally conducting a symposium of this realization, justified with the survival-of-the-fittest school of though, when I caught myself at it and rejected that line of thinking. Since it's my survival at stake here, I determined that the best course would be to avoid wasting effort on useless complaining and simply stick close to Erwin. He seemed to be the one who knew what was going on out here, so I might as well learn from a pro.

But the first thing I had to wonder about was why in the name of Otto von Bismarck were we using Platoon Movement? Back in Russia we used to prey on those Red tankers moving in such awkward fashion. Yet here we all were, radios fully operational, yet using Platoon Movement. I had to wonder about the legendary Fox for the second time today. The next thing I noticed was that we were not headed for the scene of our earlier skirmish, but were driving off on a tangent to the west. After running this through my mind several times, all I could conclude was that Erwin must know something I didn't. Maybe he knew where the enemy was headed? Maybe he just wanted to take advantage of this road so we could gain time and overtake the fleeing British?

Such thoughts were quickly driven from my head, however, when on a signal from Erwin the MkII platoons pulled off the road and took up a parallel course about 120 meters [*three hexes*] off our right flank. To avoid outdistancing them, we had to slow our own pace to what seemed like a crawl. Visions of those hordes of burning Russian tank platoons flashed across my memory. Were we destined to be caught by the enemy in this confounded formation and mauled like chumps? I was incredulous when we came under ATG fire almost immediately. When I realized that Erwin fully intended to ride through the enemy fire in this abstract formation, my feeling turned to panic. Surely we were all going to die!

But then I noticed a curious phenomena. While the "CRACK" of enemy 40mm rounds screamed all around us as they flew past at supersonic speed, not one of our tanks had been hit. I had to wonder at what appeared to be poor gunnery from the British, of all troops! Were these new recruits, or maybe some untrained detachment of colonials? Well, either of those might explain a great deal, but as I pondered on this situation I began to piece together some extenuating facts to explain our apparent invulnerability to enemy fire. First, we were at long range. The range modifiers of enemy To Hit chances for 40mm and 57mm ATGs offered much better protection than I had ever experienced against those 75mm guns I had faced in Russia. That is, although the enemy could see us approaching from a great distance, that same great distance itself dictated that their fire fell on To Hit ranges I had rarely—if ever—seen. This meant that my old logic of "if they're shooting at you, you're in trouble" no longer applied, for the very elementary reason that conditions might be such that there is actually very little danger of a hit—and only miniscule probablity of a kill. This becomes even more understandable once the modifiers for small caliber (C4) are added to those long-range tables. So long as we remained at a distance of at least 760 meters [*19 hexes*], those 40L guns should hit a stationary target with only 41% of their first shots.

Still, I knew better than to feel secure based on that sparse protection. Once they gained −2 Acquisition, their accuracy goes up to 72%—and with their massive ROF and Multiple Hits we ought to be seeing some kills any minute now. That was when I dug deeper. There must be something more to explain our continued good fortune.

Of course I knew we were more difficult to hit because we were moving, and our reduced speed did not alter this (movement is movement) other than by virtue of leaving us exposed to more shots over a period of time than had we been moving faster. But the kicker was that cloud of dust raised by the MkII platoons. I had first seen the use of such a screening maneuver in training films, but those accounts had not done justice to this very intricate desert tactic. I had always assumed that one vehicle would cruise alongside everyone else to raise this dust, but seeing it in person revealed that the dust settled out or dispersed too readily for that to be effective. And yet, it initially was too dense to expect independent vehicles to maintain contact with one another in order to ensure a continuous screen. Suddenly, I grasped Rommel's genius in using Platoon Movement. All the drawbacks be damned, it was providing our main battle line column an extra +2 cover! To be sure, some of the MkIIs were naked to enemy fire, but their small size already made them tough to hit and, after all, this was war! We couldn't expect to slide through it without some losses. If the enemy were going to shoot at us, let them aim at those antiques if they so choose.

One interesting benefit of the dust I hadn't previously considered is that it can even hinder LOS to such a degree that a total block is achieved. A good rule of thumb seems to be that LOS traced through 120 meters of dust is a total block. The most outstanding ramifications for me here were that: one, the enemy can't shoot what they cannot see; and two, even Acquisition is lost through only 120 meters [*three hexes*] of dust. As the LOS between our platoons and those ATGs altered across the fluctuating dust of the MkII screening force, I was amazed at how readily Acquisition dropped off us. It was one impressive display of desert tactics being demostrated by MkIIs. I had already observed that driving through desert scrub and hamada required added caution, which translated to slowing down (2MP). Thus, if the MkIIs were to drive in line across this desert clutter, they would be forced to slow to such a pace (due to also driving through

the dust raised by the lead vehicles) that no such dust would be raised in the first place. What a vicious circle that! By travelling in staggered fashion, they not only avoided this problem, but also forced enemy LOS to trace through more than one VD in many cases.

But the most ingenious tactic was yet to come. Early on I had wondered why the last platoon of MkIIs seemed to always lag behind. But then, all of a sudden, here they came at full tilt, charging across our right flank three abreast. They received a hearty cheer from us MkIII commanders as they swept past and we realized their purpose—for as they crossed the LOS between us and those enemy ATGs, all remaining Acquisition was peeled from our ranks automatically. Interruption for even just

Figure #1: The MkIIs twist and turn to drive through the desert scrub and hamada while maintaining a screen of vehicle dust.

this brief instant by their three dust clouds was sufficient LOS disruption to free us from all Acquisition. Later, when we, in turn, passed this platoon (in the next MPh) all new acquisition fell from us yet again. I was beginning to see how Erwin had gained his reputation.

As if all this were not enough, in any location where the MkII dust screen was incomplete, our own MkIIIs attempted to fire their smoke dischargers. The combination of smoke and dust made for a truly bewildering swirl of visual confusion. Small wonder the "CRACK" of hostile rounds continued to scream all around us to no effect. When

I mentally added all this new information to our 760 meter range and motion, I was pleased to arrive at only a 3% chance (''eyes'') of a hit through 40 meters (one hex) of dust—and only improbable hit chances through 80 meters of dust (''eyes'' followed by a 1-3 dr). Thus, even on his third and each subsequent shot (−2 Acqisition), the enemy enjoyed only 16% and 3% chances of hitting through one and two hexes of dust. I wondered whether Erwin had worked this out as well, or did he simply ''feel'' it (an ability many leaders have claimed)? Either way, I realized he commanded the experience to justify his conclusions.

As I noticed the enemy fire beginning to slacken, yet another thought crossed my mind. Because of the very high volume of fire those ATGs had been putting out, it stood to reason that before too long some of them should either deplete their immediate ammo supply, overheat, break down or, for other more remote reasons, simply stop firing. My experiences in Russia and Hedgerow country were that a gun usually took a shot or two and then one of three things happened: the target was eliminated, or the target ran from LOS, or else the target eliminated the gun via direct fire or overrun. Out here in the open, however, those guns could fire at us for so long before that moving attacker could hide or return effective fire that running from LOS or eliminating the gun did not seem like viable options. That left only the option of target destruction, which did not rest too well with me in our current situation. Fortunately, all the To Hit modifiers worked in our favor, and now this slackening of enemy fire was providing yet another bonus. The crux, then, was that the very great number of shots should lead to a great many more gun breakdowns of one type or another than I had seen previously.

Thus, the silencing of an enemy by this means is transformed from something extremely rare (a very real reason to celebrate) to something which could actually be anticipated (an event bound to occur sooner or later). Furthermore, since an ATG with a high ROF expects to average two shots every fire phase without even risking Intensive Fire or Overrun Prevention, loss of one or more of these weapons is a very serious blow to the enemy. The culmination of this continuous firing as practiced here in the desert was that one should anticipate a 3-ROF weapon to be forced to stop firing within about 45 minutes [*nine turns*]. Considering how many shots each gun might be entitled to enjoy prior to such a breakdown (from one to 35), this may at first glance seem immaterial. But some of those guns will break down on their first shot, some on their second, and so on. What all this meant to me was that there were not merely three alternatives when facing an ATG as I had thought—but four! The fourth is that by employing an effective screen of To Hit modifiers, one can avoid destruction even to the point of making it more likely a firing gun will malfunction than destroy the target. I did note that use of this tactic might be limited to desert warfare and other situations in which the attacker commands exceptional screening potential.

So the name of this game is to force all those enemy shots at the worst possible To Hit odds. Our motion at long range from ATGs firing through 40-80 meters of dust and smoke certainly went a long way towards limiting enemy hit chances. Add to that the low probability one of those 40mm rounds could penetrate our six frontal armor at this range [*''3'' Final TK#*] and it was an elementary calculation to prove that the probability of a gun breakdown before a kill was actually more than ten-to-one! Even with −2 Acquisition, we could expect twice as many gun breakdowns as kills. Of course this ignored the inevitable Immobilizations, Shocks and Stuns we would suffer, but since they were not outright kills, those tanks would either return to haunt the enemy by firing at him or else

would draw yet more fire, much to the benefit of our still mobile vehicles.

KABOOM!!

Oops! After all that optimism the enemy finally did hit one of our tanks. I turned to look and saw it was a MkIIIG, hit in the side turret. Flames were leaping from the motionless tank already. I swung my gaze back to Erwin, to see how he was taking it, and was not surprised to catch a perturbed look on his face. Just when you thought it was safe to go out in the desert, something like this has to happen. But as any top-notch commander must do, Erwin quickly turned his attention back to his plan. No time to mourn our losses now; there was work to be done.

We finally were pulling beyond range of that ATG

Figure #2: The MkII platoons create a complete LOS block as they pass between the enemy and the road.

screen and continued to work our way westward, deeper into the enemy lines. The MkIIs had returned to the road and we were once again making all speed. Casualties in the encounter with the ATGs had been extremely light, only one tank loss thanks to Erwin's proficient desert tactics. I marvelled at this, for even though the enemy ATGs were very small caliber by my standards, I had expected abundant casualties by way of Immobilization and Shock as much as outright kills. But the problem for those gunners was that they could not even hit us, and therefore were denied a reasonable chance of harming us in any manner. This gave me renewed

appreciation for desert tactics—and for the old Desert Fox himself. His cunning in that headlong run across the sights of emplaced enemy anti-tank guns, a situation which offered to my East Front trained eye practically no chance of survival, re-established him in my estimation as one of the premier tacticians in our army. Participating in an action that might have caused the end of us all if not for the skill and courage of his leadership (indeed, those were the only attributes we held in our favor) certainly went a great deal further towards giving me a lasting appreciation of the Fox than any amount of propaganda could. The man who can find a path to victory where others would not even dare the attempt is destined to gain the trust and admiration of those who follow him.

Well beyond those gun emplacements, Erwin led us off the road and we headed north. We continued on this bearing for about an hour, finally making a slight hook to the east and pulling to a stop just shy of a low hillock. Erwin deployed us in a line north to south, and we sat while he carefully maneuvered himself up to the hillock in a cluster of desert scrub. He would begin the next scenario HIP. I had to wonder what he had in mind.

I didn't have long to wait, for after only about a quarter of an hour Erwin spotted an enemy column heading across our front from the southeast and signalled the rest of us up to the hillock's edge. The enemy were driving across our front on a tangent, and I had to blink, for it appeared they were not concerned about Herr Rommel and only just now were beginning to respond as our entire battlegroup pulled into place and opened fire. But it was the enemy who were doing the heaviest blinking, for the justification of our afternoon-long trek was finally apparent even to this untrained observer. We were now facing the enemy at dusk with the sun at our backs. Rommel's silence had allowed him to draw in the enemy until they were within easy kill range of our 50mm guns and, thanks to the combination of sun blindness (+2) and our hulldown placement, our own movement modifier (+2) and enemy motion (Case C + lower die × 2), we were nearly impossible to hit during the enemy DFPh—and they could not gain acquisition on us whereas we could gain it on them in the AFPh. Furthermore, since we had stopped while the enemy remained in motion, we would have the advantage of our next Defensive fire and Prep fire before they could return any fire not modified by their own movement. The enemy could only continue in motion or stop moving, suffering horrid TH modifiers in either case should they attempt to fire at us. To add insult to injury, even the few ATGs we had brought with us were able to set up while the enemy tanks were in motion and could open fire in our DFPh before the British tankers could bring effective fire upon them. I realized the value of catching the enemy by surprise in this manner. That trick with the ATGs had to go into long-term memory; I could visualize a need for it in the future.

For all intents and purposes, this battle was all but over. The terrain immediately before us was becoming an Anglo-armor graveyard. The enemy hadn't a prayer. Erwin had invested an entire afternoon getting us to this point and this was the payoff. How much different this situation was than our earlier encounter with those Tommy ATGs! I didn't have to wonder at the disparate results either. The battle before me was won when Erwin drove us to this location, and that with the British ATGs had been lost due to the combination of them digging in too far from the desert road and failing to block the road itself, plus Erwin's screening tactics. The British tankers we were presently despatching were doomed by their own carelessness in an area they thought secure.

Dispite all that, Erwin still carried a chagrined look about him. I supposed that if he had set his heart on obtaining fresh fuel supplies, there was not

much to celebrate in smashing a few dozen enemy tanks. Well, I found it thrilling; but, of course, I didn't have to concern myself with strategic worries. Erwin, however, must split his energies in many different directions. Small wonder a 10-2 armor leader is so valuable that we rarely benefit from his actual presence on the battlefield. I was glad to have to think about only the enemy before me. Speaking of which, my thoughts were already turning to the next encounter.

We had taken our toll of the enemy and now were low on fuel, heading home. Speed no longer being essential, Erwin took us straight out into the open desert to the south. We could not afford to burn the fuel to speed past those ATGs as we'd done on the run in. This had to be a low-profile exit. No bows, no curtain calls, just get out and get home. Night would be upon us very soon, and chances of a meeting engagement in the desert at night did not bear extrapolation. Our departure might have been unnoticed, except for a bit of unexpected action.

We had to cross an escarpment to reach the desert to the south, and Erwin was concerned about hidden enemy troops in the undulations and wadis of this rugged terrain. At what appeared to be a choke-point in the descending road, he pulled his MkIII to the side in order to cover everyone as we passed. Thus, the entire column swept past him and only my own tank remained behind when the enemy, who had waited until Final Fire, finally fired—hitting and destroying the MkIII in front of me. Then Erwin's tank was hit with an immobilizing shot, followed by several more hits which failed to kill but did finally force Erwin and his crew to abandon it—whereupon they were raked with machine-gun fire. I saw the driver go down and it looked like the general himself took a bullet. The crew broke and low-crawled into the adjacent wadi. I had to think it was my turn next to play target; the enemy ATGs had not even lost concealment yet.

But I wasn't about to be caught flat-footed. Using the spattering of experience I had gained earlier, I used my AFPh to make a free CA change rather than trying to fire while in motion, pivoting to put my heavier frontal armor toward the enemy. Fortunately, their ensuing Prep fire shots missed since I was still in motion and they were continuing to try for immobilization shots, thinking they could not hurt me but not realizing they had even less chance to hit me with all the modifiers stacked against them. They opted not to Intensive fire, no doubt expecting to nail me with their next Defensive fire shots.

My own fire at the enemy wasn't even worth risking a gun malfunction for, what with my motion and enemy concealment still in effect. But I did have one tactic at my disposal. Since I hadn't shot, I was able to again make a free CA change at the end of my DFPh. I used this to align my VCA toward that adjacent wadi. Thus, by foregoing that improbable To Hit risk (which had better chance of breaking my MA than of hitting anything), I was still able to position myself for a fast exit with this free CA spin. Not bad for a rookie. The enemy would not even have a shot at me with Defensive fire before I disappeared into the wadi.

While I was patting myself on the back I noticed several Crusaders working their way around both flanks to envelop me. That brought another thought to mind. I now had the option of pulling straight into crest status instead of moving INTO the wadi. Once there, I would be hulldown to those ATGs in my rear, and could therefore avoid their irritating immobilization shots, and at the same time be hulldown to the Crusaders in my VCA, putting them at a disadvantage due to facing my gun with only my turret frontal armor exposed. But I rejected this thought, for the enemy were too numerous and, after all, I did still have an ally to my rear who would be my ticket out of this jam once he managed to rally his crew and re-enter his MkIII. No, getting

Erwin's −2 DRM back into the act was my best bet, so I plunged into the wadi to draw as many attackers away from my stricken leader as possible.

It was a wild ride up and down through the wadi and I began to despair of ever hearing from Herr Rommel when, to my great relief, his voice came over the radio. "Come back to me now," he commanded, "I have the situation in hand."

I wasted no time turning around and making straight for the protection of his red-hot 50mm gun. I figured the Crusaders on my tail would give up the chase, but they didn't seem to know or care who they were facing. They might have easily outmaneuvered me eventually and swarmed in for the kill—but against Erwin they were in trouble. I recognized the clever twist in Erwin's brand of tactics in bringing me right back into his hex. He gave away a DRM [*due to being overstacked*], but still commanded superior To Hit modifiers over the enemy. In order for them to get me, they would have to expose themselves to him as well and he was very (very) good. In this manner, side-by-side, Herr Rommel in his immobile MkIII and me in my first real desperate situation in the desert fought against the odds. Firing from the same hex, we took out four enemy tanks, forcing the remainder to flee.

In the meantime, under Erwin's radio command, rear elements of our column had maneuvered to bring those ATGs under attack from their rear. All had been subdued or their crews chased away by the time we finished with the Crusaders. We were left to review the damage: four Crusaders and three ATGs with a scattering of prisoners but, more profound for Erwin, his own tank immobilized and three others destroyed. His dilemma now was that we had consumed too much fuel and had several valuable guns which we could use but had no way to tow. He immediately radioed a coded message, and then left a platoon of MkIIIs and some of our own crews to dig in the captured ATGs and hold the position until we could return. We ourselves lurched off for a rendevous in the desert with Rommel's secret mobile fuel force (MFF).

I was relieved that our midnight journey and refueling went by without enemy intervention. I needed the time to collect my thoughts on the day's actions. Remind me to tell you sometime about night combat in the desert, though. Oh boy, is that ever a hair-raising experience!

After we had refueled, Herr Rommel said, "Well, there has been a change of plan. I have a report that our own fuel dump is under a night attack, and enemy armor is reported in the area. I expect them to reinforce the raid at dawn, and we will have to hurry to prevent them from destroying our foothold here in this desolate part of the front. It means we will be driving straight at them in the open desert."

"Excuse me sir, but I have seen what you can do in the worst of situations," I replied. "I'm sure you will find a way." Actually, as much as with any real confidence in what I was saying, I felt compelled to respond in this manner simply because the general had deigned to speak to me so openly of his plans.

"I'm afraid you don't know the worst of it," he answered. "The report mentions the area has had rainfall so there will be no dust, and Heavy Winds are expected so there can be no smoke. To top it off, we have no time to waste and so will be moving into the enemy with the rising sun in our eyes. Now tell me what you think."

"Begging the general's pardon, but I think you must know something I don't . . . or else you are going to call this thing off, perhaps."

"No, not this time. We will have to take our licks. We simply cannot run away from this one. The enemy has outmaneuvered us after all our successes yesterday. It looks like they might be under new, inspired leadership. We must crush this bold attack or forfeit all we have gained these past few months. We *will* fight."

When he put it like that, I was glad it was not my responsibility to lead so many men into such a desperate battle. So many lives at stake. So little time to think the matter out. I had to wonder how much we were all driven by events; how much control did any of us really have over our destinies in this contrived existence called War?

All such thoughts put aside, we were mounting up once again to make our next (for many, certainly the last) ride into combat. Then we were off and running at full speed across the open desert. There was not much of the night remaining, and for this I was thankful. If we were destined to face the enemy at dawn, I didn't much care for any extra hours to dwell on the matter. I let one of the crew members handle our trek; I wanted a bit of rest, to clear my head for the coming battle.

We rode into the rising sun in two columns. At a range of 2000 meters, after several of the enemy had foolishly opened up on us, we split the force. Erwin led the column to the right and I was in the one on our left. As instructed, we did not stop to fire at the enemy until we progressed far enough to have targets in our sights which were not obscured by the sun. In this manner, our column on the left flank engaged enemy tanks on the right, while Erwin's group on the right engaged those enemy on the left immediately in front of me. The unfortunate thing about all this was that the enemy were not so hindered by the rising sun, and were piling up casualty points on us as they were effectively able to engage targets at closer range than we could.

However, the nearer we came, the easier our task became—and it was immediate apparent the enemy were on the horns of a dilemma. Those in our immediate front, who were taking fire from Erwin on the right, had swung their frontal armor around to face him; and the same went for those enemy on the right. So, when we came crashing through what should have been the enemy flank, due to the positioning of his tanks in that locale we, in effect, were in his *rear*. Those poor tankers who remained in their current facing took rear shots from us, and any who spun to engage us took rear shots from Erwin, admittedly still at long range but also still Acquired by the few stationary and immobilized MkIIIs on that flank. The result was a wild melee in which we initially held great advantage and began scoring many kills, which was fortunate since our own losses during that head-on dash at the enemy had cost us dearly.

But we still outnumbered the enemy and wielded overall armor and armament superiority. This combination, brought to bear once again by Erwin's splendid tactics which always seemed to deliver us at the point of decision in every battle, forced the enemy to withdraw. Precious few of them escaped, and those only because Erwin was more interested in continuing on to save our fuel dump to guarantee its survival.

My exploits with the general are now among my most memorable campaigns. To watch and learn how one is able to conquer the uncertain, the new and seemingly unsolvable mystery of the desert war is a lesson I have not failed to recall upon many subsequent occasions. That a man can work his way past such obstacles which even the earth and the elements hurl in his path, to even use these to his own advantage, trusting only to his experience, his intellect and his courage, and to conquer these as well as his enemies, is knowledge I shall carry as a maxim to my grave.

But long before that cold, damp pit greets me, I shall spend many joyous days in the desert expanding upon my newfound experience. I have already grown to enjoy this war in the barren wasteland, perhaps even more so than amidst the trees and city clutter of my past European adventures. Out here a man is a man, and everyone can tell for miles.

Sports Special

THE KNOCKOUT GAME
By Jim Burnett

Boxing is not normally thought of as a sport which concentrates on statistics. About the only numbers usually available for public consumption are won/lost and knockout records, and those are often of questionable value, especially from obscure fights and locations. At the same time, there is great interest and speculation in how individual boxers, especially from different eras, would match up against each other. An easy way to examine this is through one of Avalon Hill's most popular sports games—*TITLE BOUT*. To create such a game, some attempt must be made to reduce the characteristics of the individual and the sport to operable quantities. While the ratings of the individuals will always remain open to the questions of personal judgment and prejudices, the operation of the game parameters should be easy to defend.

As is the case with many of Avalon Hill's statistical sports studies, the heart of the game system is the "Fast Action Cards". In *TITLE BOUT*, there are 80 such cards to represent the various actions that may occur during boxing matches. The cumulative precentage spreads for the Random Numbers (1-80) and Control Factors (1-20). Note that in the deck there is a smooth distribution of these cards (with a 1.25% spread for each step of the RNs and 5.00% for each step of CF). I figured the percentages cumulatively since the pertinent information is usually the chance of drawing a card equal or less than the number desired. (Thus, for instance, to draw a RN card equal to or less than 27, you've a 33.75% chance.)

These are not the only evenly distributed numbers on the cards. There are an equal number of results for left- and right-hand punches. The punch numbers themselves are spread evenly over the deck. (In order to preserve this symmetry, make the following change: the L-66 card should be modified to read "RESULT: L-52 and KOR: 4".) The KD, KDR and KOR numbers (all 1-20) each have four cards. Other cards and results are not so clear cut.

There are 19 cards which call for a knockdown check (23.75%). There is one card for each of the ten "Cut" possibilities, giving a 12.5% chance of a cut. For those who need to maneuver their fighters, ring position will be determined at ring center 70% or the time, and at each of the other stations only 5%. Judging is quite skewed, with the higher scorer taking half the judges' decisions, the lower getting the nod 30% of the time, and the remaining 20% of matches ending at a draw.

I will now integrate the above and include the tables found on the board to draw some conclusions on what you can expect during a game. The following approximations must be made. Of the 40 cards available for each round, there will be about three cards used each time control is checked and action is precipitated—about 13 occurances per round. If we contest a 15-round championship bout between two evenly matched boxers, each can

expect to be in control about 100 times during the bout. This gives us an easy method of comparison since raw numbers will reduce to percentages directly. Shorter bouts will have to be scaled by the percentages, of course.

Since all punching is even, we will expect these results to reflect the abilities of each fighter. Knockdown/knockout ratings will be determined with the aid of the following chart:

Table 1: Knockdown chances by Boxer HP rating per 15-Round Fight. The percent (%) entry shown is that for any "K" result.

HP	1	2	3	4	5	6	7	8	9	10
KD										
4	17	17	14	9	7	5	4	3	2	1
5	2	3	4	5	6	6	6	5	5	5
K	1	3	4	6	7	9	10	12	13	14
%	5	15	20	30	35	45	50	60	65	70

To compute the chances of a fighter being knocked out in a 15-round bout, multiply the chance of a knockdown possibility (.2375) by the percentage number from your opponent's HP rating in Table 1, then by your own fighter's KDR1 and KOR rating percentages, and then by .5 for the match. (This .5 reflects that each fighter will have control about half the time; if the ratings are different, this figure should be modified in your calculations.) For example, if your opponent's HP is "8", your own KD1 is "2" and your KOR is "1", you would have $.2375 \times 4 \times .15 \times .05 \times .5 = .0036$; in other words, about a .36% chance of being floored. This will be mitigated by other chances during the contest, such as your own KO, any TKO or other fight stoppage. These numbers may be used as they are, or for comparison's sake. If you wish to know only your own chances for being knocked down, omit the KOR factor in the equation.

A far more prevalent way of ending a match is by TKO. The next table shows the possibilities for effects to a boxer on the TKO and Condition Chart. These chances are listed for all effects ("A-I") and for "I" only (an immediate stoppage). While this chart is only consulted upon a 20-point or greater round, the odds of survival once this point has been reached for you are not good. Naturally, the individual ratings of your boxers will determine if they are even capable of this high a score. Not included in this table are the chances for an "Automatic" TKO and the fact that a fighter has a chance of injury in one of eight bouts.

Table 2: Percentage of TKO Occurences Per Check

TKO Rating	1	2	3	4	5
A-I	55.00	70.00	77.50	85.00	92.50
I	2.50	3.75	5.00	6.25	10.00

The next table shows the chance of a "Cut", by comparing one boxer's CO to another CH value. While this table is not as important as the previous, it should be considered since a fighter who is susceptible to cuts is at jeopardy of a stoppage at any time. Indeed, more bouts between top-notch boxers are ended due to cuts than KOs. CO numbers of greater than "6" have not been included since they

are not present on any existing cards.

Table 3: Expected Cuts Per 15-Round Bout

CO \ CH	1	2	3	4	5-6	7	8-10
1	.19	.31	.44	.55	.62	.75	.88
2	.38	.62	.88	1.12	1.25	1.50	1.75
3	.57	.94	1.32	1.67	1.88	2.25	2.62
4	.75	1.25	1.75	2.25	2.50	3.00	3.50
5	.94	1.56	2.19	2.80	3.12	3.75	4.33
6	1.12	1.88	2.62	3.38	3.75	4.50	5.25

The final way to lose a fight is by ''Foul''. The foul chances by ''Foul Rating'' are summarized quickly, classified as to expected chance of foul and warnings. These results are based on the expectation of drawing 1.25 Foul cards per bout and are an indication of the number anticipated in 15 rounds. these results are not that prevalent, but occasionally might influence a fight. In short, an ''A'' Foul Rating gives you a .28 chance of committing a foul and a .23 chance of a warning; ''B'' gives you .36 and .31 respectively; and ''C'', .44 and .39.

The following are just a few suggested rules additions which could increase your enjoyment of *TITLE BOUT*.

1. Since few fights are stopped by TKOs while the fighter is in his chair, keep count of the points required for an automatic TKO per the round chart. When the boxer has equaled or exceeded the total for one, two or three rounds, the bout is stopped immediately at that point. Cards are counted per the TKO time chart to determine the time.

2. If a fighter is knocked down, reduce his AGG by one. A good flooring should give a hint to even the dullest intellect that he should stop charging in so hard.

3. Fighters and managers have no real idea during a bout how the scoring is going, so why should you? This is true in the ring and can be reflected in the *TITLE BOUT* scoring system. Instead of drawing for the score at the end of each round, wait until the end of the match. This puts more pressure on the managers in a close match to keep up with the action. You will have a rough idea of the standings from the point totals, but the suspense just adds to the excitement. Also, if you are going 15 rounds, you have something to do with the forty cards left over.

The following is a summary of the new rules in effect for the latest release of Boxer cards. All are optional, and it will be difficult in some cases to change the older cards to adapt the new features. As usual, use your own best judgement when assigning values to older cards.

1. KP Rating: This appears after the HP on the card as a number from ''−2'' to ''+2''. Apply it to an opponent's KOR rating when checking for possible knockouts.

2. CounterPunching: This rating follows a ''/'' on the ''Punches Landed''. If a fighter misses a punch, apply the RN on the next card to the opponent to check for a counter punch. If one lands, follow normal procedures.

3. Fast/Slow Start: At the bottom of the card is a Round number for slow starts. All rounds equal or less will be fought using a CF one less than listed.

4. Endurance: Endurance is listed as a Round number. The rating is given for ''10 rounds/15 rounds''. Add +1 to the 10-round value for a 12-round bout. Endurance is modified by minus one round for either a knockdown or a 20-point round. Only one deduction may be made for this penalty per round. If endurance is exhausted, reduce the fighter's HP by two, increase the KDR1 and KDR2 and KOR by one, and reduce punching accuracy (regular and counter) by two. All changes are in effect for the rest of the bout.

5. Southpaws: A fighter who has a ''L'' denoted after his division is a ''southpaw''. The unortho-

dox stance is considered difficult for a right-hander. When right-hand and left-hand fighters meet, subtract one from the right-hander's CF.

I hope that these comments and suggestions will enhance your enjoymeny of *TITLE BOUT*. May your next fight be a knockout! ☆

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Gunned-Up . . . *Cont'd from Page 33*

There is no place for cowering behind a cluster of trees or for springing out to ambush the enemy from some cover. There is no flitting from blind hex to blind hex for those tankers who cowardly fear the enemy guns more than they feel confidence in their own ability to withstand punishment. Now they live by the ''Code of the Western Desert'' and fight in a landscape where the only security is one's own ability to thrust and parry, to dish it out and to take it. The dead and the wrecks of their comrades may well lead the way to battle—but it will be a battle of honor, one of challenge and acceptance, of laying your cards on the table and daring the enemy to beat you, a return to past conflicts when at least some amount of integrity crept into the madness of war.

As we turned our tanks to depart for home, I noticed a hefty tan-colored box protruding from underneath Herr Rommel's field jacket. It looked like a photograph of a Matilda tank with several British infantry depicted on the cover. I radioed the general, ''Excuse me Herr General, but isn't that a new module I see?''

''Why, yes it is,'' came his somewhat surprised response as he deftly tucked the package back inside his jacket.

''Pardon me, but where might I get a copy?''

''Why, any of the finer hobby shops, or by direct mail from headquarters like always,'' he replied sheepishly.

Well, so much for legends. And to think I nearly died out here thinking I had to learn this desert warfare the hard way! I was already putting through a call to headquarters, *MasterRaceCard* in hand, to place my order immediately. I ordered an extra set of unmounted mapsheets as usual, for magnetic use inside the tank. Can you believe that I even heard rumors that those goofs back home are actually working on some sort of special coating for the insides of our tanks to make them nonmagnetic in order to prevent us poor tankers from playing the game? It's like they don't want anyone but the GENERALs to understand this war.

Well, I knew better. Once I got my hands on those new specifications, I would master this desert war—Rommel or no Rommel. Let him fool everyone else; I'll pick it up on my own and then come back to next year's tournament and challenge him. Oh how I loved it! I loved the new terrain, the new nationality to challenge (I even hear that the Italians are about to show up down here), all that new information on British vehicles. Erwin was starting to look sick. Ha, ha. I'll bet he's going to feign another serious illness to fly home to gain the freedom to pour over the rules again. He's worried; I know he is. He'll go home and try to work out some new tactics, but I'll be out here living them. He's cooked and he knows it. I bet I can get in ten scenarios a month—no, make that twenty! He'll never catch up. He'll never realize that ''the game's the thing.''

So it was with a newfound awareness that I drove off into the desert. Enemy aircraft might zero in on me, their artillery might bombard me and their infantry might close assault me. Who cares? I was riding on a cloud. I had the latest module on its way to my tank hatch at this very moment. No doubt it was already enroute via UPS (*Untermensch Parcel Service*) crossing the Mediterranean. The days ahead glistened; my future was secure. ☆

STORMING SMOLENSK VIA THE POSTAL ROUTE
PANZERGRUPPE GUDERIAN By Mail

By Jim Lutz

PANZERGRUPPE GUDERIAN employs some different gaming concepts for conflict on the Eastern Front in World War II. The possibility of overruns during movement that are not automatic victories is an integral part of the game for the German player. The untried status of the Soviet armored and infantry divisions is another intriguing aspect of the game that greatly influences tactics. Until tested in battle, the reliability and value of some of these units is uncertain, and a vital Russian defensive position could collapse at the first sound of approaching German panzers if manned by zero-value divisions. Even though the large scale tactical scope of the game and the fact that individual hexes are numbered are factors making the game appropriate for play by mail, the possibility of overruns and the untried status of Soviet units (plus the fact that combat results can be either step losses or retreats) would initially give the impression that playing the game by mail is going to be difficult—if not impossible. In actuality, the game does not require a face-to-face confrontation for play, even when most parts of the game system are used.

OVERRUNS

The tactic of overrunning enemy units during movement could complicate PBM games. The phasing player might have to send out sequential mailings at times as movement progresses. If there are constant overruns, a single Movement Phase could take months! Fortunately, such is not the case.

Soviet overrun attempts will be few in the game, although they may be critical to the final outcome. As a result, few additional mailings will be required during Soviet movement. The German player must use overruns more frequently if he is going to have a chance to win the game, but he cannot do so indiscriminately. A negative result ends all movement for that phase, and retreats by the attacker (routes determined by the defending player) could leave units isolated and vulnerable to counterattacks. During the regular German Movement Phase such overrun attempts will be limited; and if they are at different sectors of the front (for example, one north of Smolensk and another near Roslavl), the results can be checked simultaneously. The remainder of the movement can then take place. It should be noted

that, under this type of system, units may be moving simultaneously for part of their movement allowance, overruns can occur, and the movement of several units is finished. It is *not* necessary for one unit to use all of its movement points before a second unit moves, as would be the case in FTF play. Such joint movement is realistic and will speed up the game. Units may even attempt multiple overruns in a Movement Phase, but the cost in movement points will limit the number of such attempts. Other overrun attempts will come at the end of the Movement Phase, permitting all the results to be checked with one mailing.

Thus, in the Movement Phase, the German player will often move some of his units, mark the overrun attempts, list stocks and choose a future CTD, and then mail the *partial* move to the Russian player—much as he would in the case of first impulse movement in *RUSSIAN CAMPAIGN* or *FORTRESS EUROPA*. Having checked the results of these attempts from the stock page on the appropriate CTD, the German player then continues with his movement, which may include additional overrun attempts. If there are no additional overruns, the German player will then undertake regular combat. A regular Movement Phase might take a week to complete in some cases, although in many turns there will be no overrun attempts by German units. Units attempting overruns have their combat factors halved, the attacking units must begin movement in the same hex, and the defending units must all be attacked from one hex—all of which limit the odds that can be achieved. These limitations on the strength of the overrun attempt usually make it more worthwhile for the German player to wait to attack during the Combat Phase at full strength and from multiple hexes. Overruns may still be attempted, however, since such attempts—if successful—will open holes in the opposing line and permit defending units to be surrounded in the Combat Phase.

Overrun attempts will be more frequent in the German Mechanized Movement Phase, but generally most of those attempts occur at the end of the phase. The Mechanized Movement Phase is typically used to surround Russian units, placing them out of supply and cutting off retreat routes. The overruns against these isolated units will then

effectively attrition the Soviet forces. While the German units attempting these overruns still face the same disabilities as in the regular Movement Phase, there is no following Combat Phase in which better attacks can be mounted. The German player can also hope that the Russian defenses have been weakened in the preceding Combat Phase, thus permitting better odds on any overruns that are attempted. As a consequence, in the Mechanized Movement Phase, often all the overrun attacks can be taken at the same time by listing stocks, a CTD, and mailing the material to the opposing player. If there are overrun attempts prior to other movement, this phase will of course require extra mailings.

While overrun attempts will lengthen the game somewhat (given the need for additional mailings), the time involved will not be prohibitive, particularly since the game itself is only twelve turns long. There is no rule of thumb on the number of extra mailings that may be necessary on a given turn. At times the overrun will be so critical that all other movement will have to wait until the result is checked; but players can usually keep the number of mailings within reasonable bounds if they try.

STEP LOSS OR RETREAT

The fact that there is a choice between step losses or retreats on the CRT introduces another problem for PBM gamers. This combat results table is not a bloody one, and retreats are the most likely choice when they are possible. Since retreats are decided upon by the opposing player, within certain limitations, there can be additional problems if the attacker should be the one to retreat and his movement is not over. Russian overrun attempts are most likely against German units that cannot retreat. In the Combat Phase (since there is no Russian Mechanized Movement Phase), the German player can check the results of combat and decide whether or not he wishes to retreat or take a step loss for each battle. He can also allocate the paths of retreat for the Russian units if his opponent has indicated that a retreat is in order.

German retreats during the various phases of his move will normally not present any major difficulties. For overrun attempts in the regular Movement Phase, the German player can usually

determine the least preferable retreats for his attacking units. Infantry divisions will retreat to undoubled terrain and away from the Russian lines, limiting their ability to join in future attacks. Mechanized divisions and units will not be retreated to favorable positions on roads; they definitely will not be positioned to flank Russian lines. If possible, they will be moved to locations where they begin the Mechanized Movement Phase out of supply. Mechanized divisions will be split up so that they cannot combine for overruns during the Mechanized Movement Phase. In addition, the restrictions on retreat routes limit the options available to the opposing player; therefore, the chances of using the "wrong" retreat route are somewhat limited. The Russian player will have the option of disagreeing with the suggested retreats the German player lists for his overrunning units. When he gets the mailing, he can check and send back an alternative that will be used if the German player actually got a retreat result on his overrun attempt.

In the German Combat Phase, much the same situation will be present. The German player can specify his assumptions about the retreat routes for attacking units, aware of what are the least useful final positions. If the Russian player has the option of advancing after combat, the German player might also list the assumptions that he is making for them—"advance" or "stand firm". If the Russian player disagrees, he can again send alternatives when he receives the mailing, sending back a change of orders that the German must implement if the retreat actually occurs as a result of combat. The German player may then have to redo his Mechanized Movement Phase if it is already in the mail, but this type of occurrence is unlikely.

The German Mechanized Movement Phase will have fewer problems of this sort since most of the overruns will occur at the end. There is no advance after combat, and the Russian player will have the option of retreating German units to positions he desires. The obvious points to consider are preventing the occupation of doubling terrain and dividing the German mechanized divisions so that they will not have the advantage of divisional integrity for defensive purposes or for conducting overruns during the next German regular Movement Phase. The Russian player will also be able to make any choices necessary in terms of retreat routes for his own units and whether or not he desires to retreat or lose a step when that option is present.

The Soviet defending units in combat or those occupying hexes during overruns will usually have an obvious choice as to whether they should retreat or take step losses. Surrounded units must take step losses. A single Russian unit (all Russian units have but one step) will of course retreat if it can. Stacks of multiple divisions may at times create some ambiguities for overruns in the regular Movement Phase or for particular combat situations. The German will normally have to note that he will assume either step losses or retreats in his mailings in terms of whichever seems less preferable to him. If it is not obvious what the Russian player would prefer in the event of certain results, the German player will simply specify his best guess as to what action the Russian opponent would choose in that situation. He may pick a CTD a couple of days further ahead in time than normal to give his opponent an opportunity to reflect upon what his choice would be and to respond if it is different. When the Russian player gets that mailing, he can specify any areas where he disagrees and send that information to the German player.

From the above, while there may be occasional problems in terms of choices between step losses or retreats, they should not prove numerous. The Russian player will have to be careful to look at the board and the situation while the German partial moves come in, and he will have to let his opponent

know if he is going to be unavailable for particular periods of time. With good will on both sides, however, all these situations can be resolved. The Russian player will obviously be less active in the game, just as he would be in a FTF situation, but he will at least know that his German opponent has to buy more stamps and envelopes to play the other side! Seriously, the smaller amount of gaming activity for the Russian side in this game suggests that PBM opponents play one and then switch sides for a second simultaneous game. They might even decide that whoever has the most victory points as the German in the two games wins the overall match (say, for AREA considerations).

UNTRIED DIVISIONS

The fact that all the Russian divisions are initially untried is an integral part of *PANZERGRUPPE GUDERIAN*. The divisions first enter the game in an untried state, and additional divisions that appear late in the game will be drawn from the eliminated unit pile—also in an untried state. This process can create obvious difficulties for PBM gamers. The problems, however, are definitely not insurmountable. If the German player is attacking or overrunning an untried division or divisions, he simply provides stocks for determination of which Soviet units are actually present as well as a stock for the overrun attempt or for combat. For example, if the Russian division is armored (tank or motorized), he chooses a stock and divides the sales in hundreds by "20" to identify the unit that is present according to the ID number given in my Table 1. (Alternatively, he could simply use the last two digits of the sales in hundreds to ascertain the identity of the armored division that is present according to the ranges listed in this table.) If the Russian division is an infantry unit, Table 2 provides the means of identifying it. The sales in hundreds is simply divided by "78" to determine which one is actually in place. (Again, alternatively, the last two digits of the sales in hundreds figure can be used to find the appropriate ID, with any results that are in the 79+ range are ignored and a backup stock used.)

TABLE 1: IDENTIFICATION FOR UNTRIED SOVIET ARMORED DIVISIONS

ID Number	Division	Strength	Similar Units	Range
01	3 Tank	7-10	1	01-05
02	4 Tank	0-10	3	06-10
03	7 Tank	3-10	3	11-15
04	22 Tank	0-10	3	16-20
05	26 Tank	5-10	3	21-25
06	27 Tank	4-10	4	26-30
07	29 Tank	3-10	3	31-35
08	30 Tank	3-10	3	36-40
09	31 Tank	5-10	3	41-45
10	33 Tank	0-10	3	46-50
11	4 Motorized	2-10	1	51-55
12	22 Motorized	6-10	2	56-60
13	29 Motorized	6-10	2	61-65
14	82 Motorized	8-10	3	66-70
15	103 Motorized	8-10	3	71-75
16	204 Motorized	5-10	3	76-80
17	205 Motorized	4-10	4	81-85
18	208 Motorized	4-10	4	86-90
19	210 Motorized	4-10	4	91-95
20	PrGd Motorized	8-10	3	96-00

Difficulties with this procedure could occur if the chosen division is already in play, or has been eliminated in earlier turns while there are still divisions in the unused reinforcement pool. If either of these

two situations is present, there are a number of ways to resolve the problem. One possibility is simply to list enough additional stocks so that if the division selected is not available, a second division is chosen by using the next stock. In Figure 1, a sample of two attacks against untried infantry divisions in the Combat Phase is given. IBM is used to select the first untried infantry division (which turns out to be the 25th Infantry). ATT provides the second untried "?-6", but the 93rd Infantry has been previously eliminated. The third stock is then used to identify the 42nd Infantry, which is available and is then placed on the board. The remaining division is then selected by the use of as many additional stocks as are necessary.

There is a second method that may ultimately prove to be more convenient to use. If the division in question is not available (already on the board or previously eliminated), an equivalent unit appears. If, say, the 93rd Infantry is unavailable, any other 0-0-6 infantry division is taken in its place. Table 1 idicates how many armored units of different strengths are available, while Table 2 has a listing of all the infantry divisions by offensive and defensive strengths. (Note that Table 2 does not agree with the summary on Page 11 of the rules booklet, which is somewhat incorrect; the values for Table 2 were taken directly from the counters themselves.) Even if the method of equivalent strength unit substitution is desired, it may be possible that no substitute unit is available. In these rare situations, the easiest way to determine which division appears on the board is to select the next available unit by moving *up* the ID number list if the stock is *even* and *down* the list if the stock is *odd*. Say the 93rd Division is not available. All other 0-0-6 units have already appeared and been eliminated. Since the sales in hundreds was 1743, the player moves down the ID number list on Table 2. The 91st Infantry is chosen if it is available. If it is already in play, then the 89th Infantry comes in, and so forth. Again as an example, if the 276th Infantry and all other 4-5-6 divisions are not available, and since the sales in hundreds was even, the player moves up Table 2 until the listed unit is available. (For purposes of moving up and down the numbers on Table 2, "78" follows "01" when moving up the table and "01" follows "78" when moving down.) Perhaps an even simpler procedure would be for the players to decide to take the next available units with a higher ID number in the table even when equivalent units are available. [In all cases, note that care should be taken to ensure that the correct 172nd Infantry Division is put in play.]

TABLE 2: IDENTIFICATION FOR UNTRIED SOVIET INFANTRY DIVISIONS

ID Number	Division	Strength	Similar Units
01	2 Inf	0-0-6	8
02	6 Inf	2-4-6	4
03	13 Inf	1-1-6	3
04	17 Inf	4-4-6	2
05	18 Inf	1-3-6	5
06	19 Inf	3-5-6	3
07	24 Inf	3-4-6	6
08	27 Inf	0-0-6	8
09	37 Inf	3-4-6	6
10	38 Inf	2-2-6	3
11	42 Inf	3-4-6	6
12	46 Inf	2-1-6	2
13	49 Inf	0-1-6	1
14	50 Inf	9-8-6	1
15	53 Inf	5-5-6	3
16	55 Inf	3-3-6	3
17	56 Inf	4-3-6	1
18	60 Inf	0-0-6	8
19	61 Inf	6-5-6	1
20	64 Inf	2-6-6	1
21	73 Inf	2-4-6	4

22	75 Inf	1-5-6	1
23	85 Inf	1-2-6	1
24	86 Inf	5-4-6	1
25	89 Inf	5-8-6	3
26	91 Inf	2-2-6	3
27	93 Inf	0-0-6	8
28	98 Inf	1-4-6	1
29	100 Inf	6-6-6	1
30	102 Inf	2-3-6	4
31	108 Inf	1-1-6	3
32	110 Inf	1-1-6	3
33	111 Inf	7-6-6	2
34	112 Inf	4-6-6	2
35	117 Inf	3-7-6	1
36	118 Inf	4-4-6	2
37	121 Inf	1-3-6	5
38	127 Inf	5-8-6	3
39	132 Inf	3-3-6	3
40	133 Inf	8-8-6	2
41	134 Inf	3-3-6	3
42	137 Inf	5-5-6	3
43	138 Inf	3-5-6	3
44	143 Inf	1-3-6	5
45	144 Inf	2-3-6	4
46	145 Inf	0-0-6	8
47	148 Inf	5-5-6	3
48	151 Inf	3-4-6	6
49	152 Inf	1-3-6	5
50	153 Inf	4-5-6	6
51	154 Inf	4-7-6	1
52	155 Inf	7-7-6	2
53	158 Inf	2-3-6	4
54	160 Inf	4-5-6	6
55	161 Inf	8-8-6	2
56	162 Inf	2-5-6	3
57	167 Inf	2-2-6	3
58	171 Inf	3-8-6	1
59	172 Inf (a)	1-3-6	5
60	172 Inf (b)	2-3-6	4
61	174 Inf	6-7-6	1
62	178 Inf	2-5-6	3
63	187 Inf	3-5-6	3
64	191 Inf	4-5-6	6
65	232 Inf	4-5-6	6
66	258 Inf	6-8-6	1
67	260 Inf	4-5-6	6
68	276 Inf	4-5-6	6
69	300 Inf	0-0-6	8
70	303 Inf	2-5-6	3
71	1 Mos Res	5-8-6	3
72	2 Mos Res	0-0-6	8
73	5 Mos Res	2-1-6	2
74	7 Mos Res	0-0-6	8
75	8 Mos Res	2-4-6	4
76	9 Mos Res	3-4-6	6
77	13 Mos Res	2-4-6	4
78	17 Mos Res	3-4-6	6

Of course, much the same procedure for identifying untried divisions can be accomplished with a random number table (including digits from "1" to "0", not just from "1" to "6"). The stock identifies the starting point on the table and two digits are selected to identify the division. If the division is unavailable or the digits are between "79" and "00" on the infantry table, the players simply move on to the next pair of numbers in the table to determine which untried unit is present. Alternatively, after the first unit is checked, the equivalent unit method can be used or players can decide to move up or down the table.

There will be times when all but five or six of the Russian infantry divisions have either been revealed or have been eliminated. Both players will know which units remain available. At this point, the player who is forcing the unit to reveal itself may simply assign each unit left an ID number and list a stock. If five divisions remain, the sales in hundreds figure is divided by "5"; if four are left to enter, the figure is divided by "4"; and so forth. It might also appear to be easier to place the

FIGURE 1:

Attackers	Defenders	Odds	CTD	Stock	Retreats
1. 12 Pz (16)	?-6[a]				
20 Mot (10)	?-6[b]			GTE	
6 Inf (9)					
2. 7 Pz (16)	?-6[c]			AMAX	
14 Mot (12)	30 Tank (3)				

Stocks for Untried Divisions:

IBM	3206/78=8	(a)—27 Inf	
ATT	1743/78=27	(b)—Inf 0-0-6 (not available)	
GMC	869/78=11	(b)—42 Inf	
Gulf	1550/78=68	(c)—276 Inf	
Shell	972		
Ford	2051		

Thus, Attack 1 odds become 7-1 (assuming no terrain modifications and Russian units in supply). Attack 2 odds are 3-1 (assuming same).

divisions in the reinforcement pool and those that have been previously eliminated in the same group for selection. I would advise against this method in the interest of fairness; the 0-0-6 infantry divisions and other weak units will come into play all too often if this method is used.

Another "rule", if you will, should be mentioned. In any given player's turn, Russian or German, no Russian unit is added to the eliminated pile until the *end* of that player's turn. Thus, any unit eliminated in the German Movement Phase by an overrun cannot reappear until the Russian Movement or Combat Phase; and it can only appear then if all the untried units have been entered onto the board already. Thus, the players will have to have three groups of Russian units offboard. There will be the initial pool of untried units, infantry divisions eliminated in the present player turn (all phases), and infantry divisions previously eliminated. (Since there are more armored divisions than needed, they will never reappear.) Once all the infantry divisions have entered the game for the first time (by Turn 7, even if the Southwest Front reinforcements are not taken), the process will be even simpler.

Admittedly, it will be a bit awkward to check the identities of untried infantry divisions when so many of them may already be face down on the board, and before specific units have been placed in hexes. (The armored divisions are so few in number that there will be little difficulty in keeping track of them.) Blank counters could be used for untried units that have not been revealed, or even counters from another game. The actual units are placed when they come into play, and there will be little difficulty as a result. At least with PBM, there is no danger of accidently turning over a counter in the course of movement as can happen in FTF play. If a player lacks blank counters or other counters from a different game, he can at least bring the Russian units on the board according to the order in which the units are listed in Table 2. It will at least be easier to find the divisions in question when they do appear.

TO THE POST OFFICE

The above suggestions should make it much easier to play *PANZERGRUPPE GUDERIAN* by mail. In a day of PCs and copies, the players can make their own OOBs for the game. The Russian OOB should contain a number of "?-6" and "?-10" entries, as well as all specific unit designations. It will also be necessary for the Russian player to indicate *both* starting and ending hexes so that the German can confirm that untried units moved correctly. The players will find too that such an OOB or a copy of Table 2 will be useful in determining which units are exposed, which ones have been eliminated, and which divisions have yet to appear on the board. Such an OOB could even be used to distinguish

between untried units that entered from the reinforcement pool and those that came back into the game from the eliminated unit pile if such a complication is desired.

In this system, there will be multiple mailings required for the German player (and occasionally by the Russian opponent), but the number will not be overwhelmning—particularly in a 12-turn game. A typical game can be played in a reasonable period of time, comparable to many of the other games that are normally played by mail. For players who like the idea of untried units and the "fog of war", the above methods will be a little different from FTF play but the random nature of unit appearances will be present. Thus, an opponent across the tabletop is not necessary for playing *PANZERGRUPPE GUDERIAN*.

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THE KING OF BATTLE
Artillery in the PANZERBLITZ Series

By Carl Schwamberger

Artillery is often described as the "king of battle", yet it is the least glamorous, and certainly the least understood, of the combat arms. This is probably to be expected of a weapon that includes survey equipment and sliderules among its essential equipment. Further confusion is created from the variations in artillery use from one army, and era, to the next. So it is no surprise that many wargames are not entirely accurate when simulating artillery on the battlefield. *PANZERBLITZ, PANZER LEADER* and *ARAB-ISRAELI WARS* are regarded as "tank games", but they do include rules for the uses of cannon, rocket and mortar in some detail. Further, the designs of these games are sufficiently flexible that very few rule alterations are required to improve the simulation of artillery. So, with a little understanding of just what artillery is all about, it's possible to better simulate the historical use of the indirect fire weapons.

My intent is not to give a complete education in field artillery. It is to orient the reader to the historical use of the artillery depicted in these games. I'd caution anyone against applying this information to any other game system. This discussion is intended to cover all three games, and the various additional scenarios that have seen print in The *GENERAL*. The suggested additions, and changes, can be taken whole or in part as the player may be inclined.

But, before plunging in, a few definitions are needed:

By *Artillery* I'm referring to all weapons commonly used for indirect fire: mortars, cannon and rocket launchers—the M and (H) weapons. Actually, nearly every 20th century cannon is capable of some form of indirect fire, but the training and specialized equipment is lacking. As recently as the Vietnam War, U.S. Army and Marine tanks were occasionally used in this manner under the supervision of field artillery commanders.

Indirect Fire is attacking a target which cannot be seen by the weapons crew, or which is beyond the range the sighting equipment mounted on the weapon can be used. It is usually controlled by someone who can see the target, and communicating information to the crew. It can also be accomplished by "firing off a map" without sch an observer. This unobserved fire is normally done according to a pre-determined plan, although infantry commanders often have attached mortar crews simply fire blind in critical situations. In the cases where a target can be seen by the weapon crew but is beyond the useful range of the sighting equipment on the weapon, the same techniques are used as when firing at a masked or unseen target. The primary difference is that the observer may be located directly in the battery position.

Forward Observer can be a member of the artillery unit, or a leader in a maneuver unit who is expected (and is trained) to direct indirect fire onto a target. The observer is normally placed well to the front of the artillery unit to which he is attached. A field telephone is the most reliable method of communication for observers, and was the most common method used in World War II. Radio is less satisfactory in many respects, but the speed and range of mobile warfare often makes a wire-based system impractical. In theory, anyone can observe fire for any artillery unit; in practice, of course, it is not nearly so easy.

Planned Fires are artillery attacks arranged, but not executed immediately. In the current rules of the three games we are considering, an indirect fire attack may be designated for a M- or (H)-class unit each turn. The rules then require (except in *PANZERBLITZ*) that the attack be made in the following turn. But frequently in the real world such attacks may be assigned to the artillery but are not to be executed immediately.

HARDWARE & MISAPPREHENSIONS

One thing that has always bothered me since the early days of *PANZERBLITZ* are the truncated ranges printed on the (H)-class counters (Figure 1 compares the printed range factors with the maximum ranges commonly achieved for that weapon and time). I don't know why the designers assigned the values they did. With indirect fire weapons, the idea of maximum effective range doesn't really apply. For the cannon depicted in the game, the probable error between the impact of the projectiles and the target location isn't large enough to matter in a mutiple-round artillery attack. Of course, worn-out weapons will lose some range, but penalizing all weapons for this condition doesn't make sense. Extreme cold, heavy rains, and above average wind resistance can also reduce artillery ranges by as much as 20%, but these hardly apply in most scenarios. The range values I am proposing are averages based on standard conditions used in the theaters these weapons were generally used in.

The 76.2mm anti-tank gun included in the Soviet countermix is a special case of mislabelling. The Soviet and German armies did use this weapon effectively as an AT asset. But, as the primary divisional artillery piece of the Soviet army, it was as capable as other weapons of this calibre of indirect fire. Although after the debacle of 1941 the Soviet crews frequently lacked the technical ability to make use of the full capabilities of this cannon, the potential was there and was used whenever possible. The five-hex range assigned reflects its effectiveness strictly in a direct fire role against point targets, as does the A classification and attack factor. An attack factor of "24" and a (H) classification (as well as the range shown in Figure 1) would be more appropriate. Note that when used against hard targets, the altered values are generally as effective as the original.

Occasionally some author will point out that certain cannon, such as the French 75, proved to be excellent anti-tank weapons and suggest that counters should be included representing them as such. It's true that the 75 was better than the AT guns designed during the twenties and thirties. But, it was inferior to the weapons built specifically as anti-tank guns during the war. Further, the batteries used in this role by the French were used thus at the local commander's discretion. They still were as capable of indirect fire as before. One of the points of playing a wargame is to fight the battle with the resources that were available at the time. Simulating specialized, transitory or misunderstood usage of a weapon at the expense of its more common role is poor gaming.

While we are on the subject of artillery in the AT gun role, the Weapon Effectiveness Chart of *ARAB-ISRAELI WARS* is much more realistic than that of *PB/PL* when considering (H)- and H-class weapons

against armor in the direct fire mode. The direct fire sights for most cannon are useful to 1000-1500 meters. Beyond that, the impacting projectiles can confuse and terrorize tank crews, but they won't hit or harm many vehicles. Allowing artillery full effectiveness to half its range is giving the king of battle too long a sceptre. For *PANZERBLITZ* and *PANZER LEADER*, I'd recommend halving the attack strength of all H- and (H)-class cannon when attacking targets beyond four hexes.

In *PANZER LEADER*, there is an experimental rule covering "Artillery Field of Fire Limitations". It should only be applied to the heavier weapons, specifically: the Soviet 152mm, German 150mm and 170mm, French 155mm, and the American 155mm and 8″ howitzers. Aside from being large and heavy, the ammunition for these was difficult to handle. Consequently a full six-minute turn would often be necessary to get an effective quantity of fire on the target with such. However, smaller cannon batteries that couldn't reorient and begin firing in that time would be ready for a new commander.

A variety of rocket artillery are included in these games—such as the Maultier, Nebelwerfer, and M13. These weapons have been allowed to fire every turn. But, it required more than a minute or two to reload the launchers to full effect. For example, studies show the BM 21 represented in *ARAB-ISRAELI WARS* required eight minutes to be readied for the next firing. A rocket artillery piece should be required to spend a turn "reloading" after any attack before being allowed to attack again.

NATIONAL PECULIARITIES

Like other arms, different armies use their artillery according to a variety of methods to reflect certain theories of how a war is to be fought. These divergent methods can be simulated easily in these three games.

Aside from the loss of technical ability during the disaster of 1941, Soviet artillery was handicapped through the use of the WWI method of deploying fixed observers and observing fire. After overseeing the positioning of his weapons, the battery commander would move forward to a vantage point. From there he would direct the battery's fire, assisted by a few NCOs. The battalion commander could send an observation team even further forward, as could the commander of an artillery regiment. Usually they did so and often had these teams replace the battery commander's team. In this case, the fire of several batteries were controlled by one observation post through the battalion or regimental command post. The observers did not work directly with the infantry or armor during the course of an engagement. They occupied an isolated observation post from where the intended targets could be seen, and remained there.

Coordination between the infantry/armor and artillery was accomplished primarily at the divisional level, and to a lesser extent at the infantry regimental headquarters. The artillery commander and the divisional staff would work out the fire plan before the attack. A portion of the artillery support could be allocated to a regimental commander for use as he saw fit, and he could assign some of that to his subordinates. But, company and battalion and regimental commanders were expected not to request additional attacks from artillery not

allocated to them.

A second problem was lack of communication equipment in the Red Army. Radios were only available for the most important formations. The observers communicated by wire or visual signals. Liaison with the supported infantry or armor depended on wire, messenger, pyrotechnics or face-to-face meetings of the commanders! Obviously connecting several batteries to their commanders, observers and division headquarters with a field phone system could take hours. Neither could this system be adapted quickly to a fluid battle. In the poorest-equipped formations, only the simplest wire system was possible. Very seldom was the observer able to communicate with other than his own battery or battalion.

The result of these **WWI** methods was to make Soviet artillery slow in response to unanticipated events. Artillery attacks were planned as far as possible in advance, and executed *exactly* according to plan. Control was centralized at the highest possible headquarters (usually the division). Massing artillery fire was preferred, but the lack of communications equipment and **skilled** staffs to assist the artillery commander meant extensive preparation times were required. These shortages also resulted in such crudities as lining hundreds of guns up hub to hub and firing WWI-style barrages. Certainly the elite Guards formations were better equipped than the average, as were some of the heavy artillery brigades and divisions that supported Army commanders. But still, effective Soviet artillery fire required hours, or days, of advance planning.

Many other armies of the time, including the French of 1940, were still tied to this older method of controlling artillery fire. Although the French were able to provide more observation teams than the Soviets. Centralized control was as important to French artillery doctrine as to the Soviet. The concept of task organization was not usually practiced by French divisional artillery chiefs, and the artillery commanders at corps and army level similarly kept a tight rein on their weapons. To be fair, this centralized control did allow the large-scale massing of artillery fire. But the execution of such concentrations was a slow methodical task. Unlike their Soviet counterparts, the French had the luxury of sufficient trained staff personnel and telephone equipment, but this asset was not used as well as it might. Direct and continuous liaison between the infantry and artillery commanders was absent below the regimental level. Much like the Soviets, the observation teams did not work directly with battalion or company commanders. Were a company commander to call in a request for an artillery attack during the course of a battle, the call would be passed to his regimental commander, who might pass it on to the artillery or even **kick** it upstairs to divisional headquarters.

What all this means in game terms is that command post markers should be *required* as spotting units for all indirect fire for the French and Soviet artillery, and *only* CPs may spot. For the Soviets, this would be at a ratio of one post per two artillery batteries, or when the marginal Soviet formations are represented a ratio of one-to-three or even one-to-four would be realistic. For the French, a one-to-one ratio is about right for the better divisions. These **CPs are** not intended to represent every observation team that theoretically could have been fielded. Rather they simulate the capability of the army in question to conduct indirect fire in the context of these games. The CPs should be allowed to spot for more than one artillery unit, and to spot attacks on two **or** more hexes in the same turn. When such multiple attacks are made, there should be a two-turn delay between the designation of the attack and the execution.

The **81mm** and 82mm mortars **are** an exception to the above rules. Organic to the infantry battalions, they were more responsive to the infantry com-

manders' needs, so **CPs** need not be required for spotting indirect fire for these weapons for the French and Soviets.

The Germans were the equal of the French in technical ability. This was enhanced through the greater availability of radios for communicating between artillery and maneuver units. More important, the German observation teams worked much more closely with the battalion and company commanders of the **tank** and infantry units. And, they trained their officers and **NCOs** of all arms in the basics for observing artillery fire. In theory, now any platoon could call in supporting fire, though in actual practice it wasn't nearly that easy. The significant difference between the Germans and their early opponents was the doctrine of decentralized control. Each regiment had its own light artillery batteries organic. Batteries from the divisional or corps artillery battalions were frequently placed under the direct control of lower commanders. This practice was especially prevalent in the **panzer** formations, where regiments were regarded as administrative and logistic channels, and task organization was practiced with a vengeance. The result was more responsive artillery support than the French or Soviets could expect. The trade-off was that it was more difficult to mass two or more artillery units on the same target. Organizing large artillery attacks wasn't nearly as slow as with the Soviet army, however. But the French did have an advantage in that respect.

In *PANZERBLITZ* and *PANZER* LEADER, the German artillery is fairly well represented. Where the scenario order of battle indicates separate regimental or task-organized formations (for example, in PL Situation 17), units from one group should have an extra turn delay to spot indirect fire for artillery of another. When separate divisional areas of operation are indicated (PL Situation 15), spotting for artillery of the other division should not be allowed at all. **CPs** for the Germans need not be required for spotting indirect fire.

The Americans and the British may have had inferior tanks and armored doctrine to the Germans and Soviets, but the artillery was entirely a different matter. The U.S. adopted French artillery methods during WWI, but lacking the constraints of tradition immediately began considering improvements. By 1940, doctrine and equipment had been refined to the point where under centralized yet flexible control, both mass and responsiveness were attained. The British methods differed in detail, but the effect was the same. Like the Germans, the Anglo-Americans strove to place as many observers as possible with the maneuver elements. Headquarter staffs were large and capable. There were numerous technical support formations for the artillery. The artillery was lavishly equipped, especially with trucks and transportation. This motorization cannot be overemphasized. Unlike the Germans, whose artillery was still 75% **horse-drawn** in 1944, the Anglo-Americans were entirely motorized and mobile.

It is fashionable to criticize the Anglo-American armies for their extensive formations of **non-combat** personnel. There were some inefficiencies in U.S. Army organization, but no more than in the German or Soviet infrastructure. The fact that there were enormous numbers of rear service personnel in American uniform did not mean that the armies were especially "fat". Both German and Soviet services made extensive use of non-uniformed **man**-power to accomplish similar support tasks. The difference is that Americans placed the support personnel much closer to the fighting man in terms of organization.

There were also technical capabilities available to American division and corps commanders that their Soviet counterparts could not even dream about. It took the Soviet artillery chief hours, or even days, to mass the fire of his cannon. The American was provided with far more target information, rapid communications, and the necessary

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Figure 1:

Nation	Weapon	Range in Meters	Range in Hexes	Printed Range
French	75mm H	11000	44	32
	105mm H	10500	41	32
	155mm H	11300	45	35
Soviet	76mm H	12900	50	—
	122mm H	11800	47	20
	152mm H	12400	49	25
	120mm M	5700	22	20
German	75mm H	10100	40	28
	105mm H	12500	49	32
	150mm H	13500	53	36
	170mm H	30000	120	80
	120mm M	5700	22	20
	Wespe	12500	49	32
	Hummel	13500	53	36
	Nebelwerfer	7100	28	16
British	18 pd. H	10000	40	30
	18/25 pd. H	11000	44	32
	25 pd. H	13400	53	35
	Sexton	13400	53	35
U.S.	75mm H	8900	35	25
	105mm H	11500	46	32
	155mm H	14600	58	36
	8" H	16900	67	40
	107mm M	4000	16	17
	M7	11500	46	32
Arab	122mm H	15300	61	48

The French, Germans and Soviets produced several models in the same calibre, but of distinctly different performance. The numbers shown here represent the types that were used at the divisional level, or lower. The others were usually controlled at Corps or Army level and would be better represented by off-board artillery if they appear at all. The Soviet and Arab **122mm** cannon represent the M30 and the D30. The former is the *PANZERBLITZ* weapon and was used by the Arabs. The D30 appeared in the Soviet inventory around 1963 and has since been acquired by some of the Arab states.

equipment to do the same within minutes. During the battle of Okinawa, a Marine Corps observer was ordered to direct artillery fire on a Japanese infantry company that had just been spotted occupying a hill. The call for fire was overheard on the communications net by the executive officer of the artillery regiment, who ordered a mass fire mission on the registration point. The observer and the infantry commander who'd requested support (unaware of this) were surprised to see the simultaneous impact of projectiles from over thirty cannon less than five minutes after the request had been given to the observer. What is so exceptional about this one incident is that such responsiveness was fairly common for the Americans and British.

As with the Germans, *PANZER LEADER* fairly well reflects the capabilities of the U.S. and British artillery. The only restriction is that units of differing nationalities should not be allowed to spot for each other's artillery.

The Israeli artillery use during the 1950s was similar to the British style of WWII and oriented to infantry support. For this reason, the armored brigades of the 1954 war were not well supported. Many of the problems were rectified by 1967. Particularly important was the addition of self-propelled artillery to the armored formations. But one deficiency that presisted to 1968 was the lack of any tactical headquarters higher than brigade. Although there were nominal division headquarters present in 1954 and 1967, these had little capability to organize multiple battalion artillery attacks. Fire support coordination at divisional and higher levels has been developed since then, although not always steadily. Between 1967 and 1973, the idea that tanks could operate without artillery and infantry support became prevalent, and was reflected in Israeli mobilization plans. In the opening days of the Yom Kippur War, the tanks proved ineffective alone against the entrenched Egyptian infantry. Consequently, a rapid return to the concept of combined arms was made (incidentally, by quite a few armies other than the Israeli as well). Still, the Israeli Defense Force does not seem to place the same emphasis on artillery support as does NATO or Soviet doctrine.

Generally, *ARAB-ISRAELI WARS* reflects Israeli artillery capabilities well enough. As with the Germans of WWII, units of one brigade should not be allowed to spot for artillery assigned to another in situations earlier than 1968 (Situation S1 for example). Where the allocation isn't clearly specified in set-up, players should allocate the batteries before play.

The quantity of artillery provided the Arabs in certain scenarios (S-8, say) shows the influence of Soviet doctrine and logistic support. The Arab states were committed to Soviet methods in 1967, '73 and in the case of the Syrians and Iraqis into the 1980s. The result was that their large quantities of artillery were often of little use in the fluid battlefields of the Middle East. When the Israelis moved as anticipated (which was seldom), the carefully planned artillery strikes did much to disrupt the enemy tank brigades. More often, however, the Arab fire attacks struck at empty desert or Israeli infantry. The Egyptian artillery men did enjoy a period of relative success in 1973. A careful Egyptian analysis of Israeli armor tactics enabled the combination of a variety of AT rockets and indirect artillery fires to break up the Israeli attacks. It is significant that the only point of major Israeli success in the Sinai was the gap between the Second and Third Egyptian armies, where there were insufficient weapons to create the Soviet-style "Fire Sacks" or kill zones.

The Arabs should be required to separate CP type markers to represent the observation teams. Not just any platoon commander could call for artillery fire. A ratio of two batteries per observation team marker would be just about right for the better quality Arabs

(with B level morale) and a three-to-one ratio for those poorer (with C and D morale). As with the Soviets, a single observation team can spot for two or more indirect fire attacks simultaneously. When doing so, a two-turn delay should be required.

Figure 2:

Target List:

Attack	Hex	Unit(s)
1—M	2R10	71, 72, 91, 92
2—M	2S10	84, 85, 86, 87, 88, 89, 93
3—S	2H8	71
4—S	2I7	72
5—L	2R7	71, 72
6—O	2V7	71, 72
7—O	2W7	91, 92, 93
8—R	2W6	71, 72, 91, 92
9—S/L	2N10	91, 92
10—S/L	2M10	93
11—R	2N10	93

Groups:
S—Stalin (Turn 0)
M—Marx (Turn 1)
L—Lenin (Turn 2)
O—October (Turn 3)
R—Red (Turn 4)

The Soviet player lacks CP units to spot indirect fire for his artillery and mortars in *PANZERBLITZ* Situation 12. Therefore, he writes up a simple schedule of planned fire for five turns. The players have agreed to add an extra turn, for artillery attacks only, at the start of the game. Since the hexes attacked and any units in them are unobserved, the "X" results on the CRT is read as "DD" and drift can be introduced.

TECHNIQUES & TACTICS

If by this point, one has gotten the impression that planned fires are the bulk of indirect fire missions, you are entirely correct. The astute commander will provide the artillery with as much target information as possible long before the assault begins. Consequently, most attacks by infantry or armor begin with a schedule of artillery barrages, which can continue well after the assault is under way. These are many scenarios in these games where planned artillery fire is appropriate—so how to simulate it is the next question.

Planned fire can take two forms. There are targets that are identified in advance as to location, ammunition and attacking unit and then fired later upon command. These are referred to in current U.S. jargon as "On Call Targets". This type of planned target can be attacked quickly when the order is given, since the most time consuming of the preparations have already been completed. A collection of planned targets that are to be attacked together at the same time are a "Group". A group of planned targets that are to be attacked, though not all at the same time, is referred to as a "Series". Several groups can also be fired as a connected series. Either a group or series can be initiated on call, or according to a schedule. Such pre-planned artillery fire may be easily simulated in the games with a minimum of record keeping. (Figure 2 shows an example of a artillery fire scehdule written for *PB* Situation 12.)

On the surface, all of this may seem very simple, but like controlling indirect fire as an observer, it's not so easy in real life. Planned fires can be used on the game board with the following restrictions. When indirect fires are planned during set-up, not more than three on-call targets per battery may be designated. During the course of the game, not more than one on-call target per battery per turn can be designated. Once an on-call target is designated, it

can be executed as soon after notation as desired. For example, an on-call target assigned for Turn 3 is ordered to be attacked in the indirect fire phase of Turn 5. The attack may be made in the same indirect fire phase rather than in the subsequent turn, as would be required if the target were assigned for Turn 5. The perceptive reader has likely guessed by this time that many of the scenarios begin after the battle, or at least the artillery part, is underway. Thus, Turn 1 coincides with the start of infantry/ armor assault with all the preliminaries skipped over. Players can experiment with adding a turn or two to the start of any game specifically for executing planned artillery attacks.

A second technique that has not been addressed yet is that of attacking suspected enemy locations. Attacking an unspotted hex is prohibited in all three of these games, with the sole exception being the "Interdiction Fire" of *ARAB-ISRAELI WARS*. However, commanders commonly plan, schedule and execute artillery fire attacks on locations where the enemy is suspected to, or may later, occupy. Indirect fire should be allowed against unspotted units and unspotted hexes. Since such an attack would be less effective, the "X" results on the Combat Results Tables should be read as "DD", and "DD" results read as "D". These results will still apply normally since they represent a reduction in morale rather than elimination or significant damage. Projectiles landing 100 meters away would still have as considerable effect on morale as those landing 20 meters away. If the hex is unspotted, as well as any unit there, then the drift table should also be used (see the Letters of Vol. 24, No. 4). Finally, unspotted hexes should only be attacked by indirect fires planned before, or during set-up of the game. Of course, if the scenario is of the umpired "double-blind" variety, then one may fire blindly away at unspotted hexes.

DISPLACEMENT

Much more could be said about the use of artillery and indirect fire. It wouldn't be hard to write an additional rulebook, or create an entire game, on the subject. What I have presented should help orient the player towards the historical use of artillery in these games. All three are, on the surface, games of armored warfare. But the basic design allows for the simulation of true combined arms warfare. Combined arms was the real weapon of significance in World War II, and has been since. Not tanks alone, not air power, not the hapless infantry, and not artillery, but the efficient combination of all according to each specific situation won battles. The colonels and generals who understood this were far more likely to emerge the winners, and tactical defeats were likely through failure to achieve the correct combination. "It's not what you have, but how you use it," is the maxim that can be proved over and over again. Hopefully this essay has spread a little enlightenment concerning the forgotten arm, and enabled the players of these games to understand the battles simulated a little better. And if the variant rules presented above increases the enjoyment and challenge, so much the better.

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UP FRONT WITH SGT. ROCK
American Problems in the Patrol Scenario
By Stephen Harvester

Face-to-face wargaming has been revolutionized by the advent of the *UP FRONT/BANZAI* game system. A generation inured to sitting idle for an hour at a stretch while observing opponents' moves may not yet realize what has happened. But a revolution once set in motion cannot be turned back. As conventioneers wander the halls between interminable boardgame moves, their attention is inevitably drawn to the excited cries from the *UP FRONT* tables. As they watch in amazement while an entire closely-fought battle is begun and ended before their opponent calls them back to the board, the conversion process has taken root in yet another gamer's heart. The initial price and that awful portrait of a Nazi on the box cover (Mr. MacGowen's fine hand at work) may delay the result, but in a relatively short time *UP FRONT* will be their pre-eminent choice for face-to-face play.

In my own gaming group, we recently completed a round-robin *UP FRONT* tournament in which four of us played 11 scenarios in two three-hour sessions. All the games were closely played, with several being resolved on the turn of a single card. Rules questions were rare and always resolved quickly with the aid of a superbly thorough and well laid-out rulebook. Waiting between moves? I sometimes wish there had been *more* time to calculate the consequences of a newly-drawn hand before it was my turn to play again.

In no other wargame is the sense of uncertainty and tension so high as in *UP FRONT*. If I make a 2-1 attack in *AFRIKA KORPS*, I know that there is a 16.7% chance I will be eliminated. But when one group moves forward *UP FRONT*, no such precise calculation is possible. My opponent may be clean out of ammo and/or obstacles, affording me a free trip to the next relative range. Or, I may end up caught in wire, mired in a stream, or disappearing under the weight of a deadly crossfire. A well-prepared hand can mitigate these perils, but there are very few "sure things" on an *UP FRONT* battlefield.

A further charm of the *UP FRONT* system, and the focus of this article, is the scale of play. With each "unit" representing a single combat soldier (with his own unique name, rank, morale, close combat value, and weapon capability), conflict reaches an intensity rarely seen this side of a role-playing game.

In one recent playing of the Paratroop Drop scenario (#R), my German squad landed near the British (on Crete, we decided). My three highest morale men landed adjacent to both British groups and took an F8 attack in open terrain. Sgt. Deitinger and Pvt. Wolff were DOA, but Pvt. Bernhoff (Morale 5), though pinned, survived. For the next half-hour, Pvt. Bernhoff single-handedly held off that entire British squad. If he was pinned, he would rally. When he had a Fire card too high for his Mauser, he picked up Dietinger's "burp" gun and fired that. Finally, it looked like curtains. Bernhoff's postion was infiltrated by two Limeys with bayonets while he lay pinned in his freshly-dug foxhole. But Bernhoff turned heroic! Leaping up with doubled firepower, he pinned his attackers, breaking the in-

filtration and putting the British back to where they started. By the time Bernhoff finally went down for good, the rest of my squad was in a winning position. I awarded him the Iron Cross with oak clusters—posthumously.

Another favorite story of mine is that of Japanese Sgt. Okimoto, the only Morale 6 character in the game. I once used his superior infiltration and close combat value (CCV 11) skills to dispatch three Marines in three straight turns before he slithered away to safety. And I have a Private Harvester (Morale 3) in my American squad. Why should Avalon Hill's playtesters be the only ones to project their fantasies onto these marvelous character cards?

It was my enjoyment of such doughty warriors as Bernhoff and Okimoto and Harvester which helped crystalize my one dissatisfaction with *UP FRONT*. The basic American squad (#1-#12) is lousy. Worse than that, it is dull! In short, it has no personality. When I think of the basic German squad, I think of Bernhoff and the hard-bitten Sgt. Deitinger (Morale 5). When I look at the Russians, I find three Morale 5 berserkers who, while they rarely win, always go down with bayonets fixed. When I think of the British, I see the thin red line putting out amazing firepower for their numbers. When I play the Japanese, I think of Okimoto, infiltration and the banzai charge. But when I think of the Americans, all I can remember are Smith and Watson.

Privates Smith and Watson, otherwise known as the "Blues Brothers", make up the only *pair* of Morale 1 men in any nationality's basic squad. These two clowns cannot hide successfully. No matter what the Americans try, Smith and Watson will find a way to foul it up. Consider the following cases.

The "normal" American setup in our group's Patrol (Scenario #A) matchups is a high-morale four-man maneuver group in A and an eight-man firebase (with FP9 or FP10 at RR1) in B. The FP is nine if the ASL is kept with the firebase for smoke and rally purposes. The FP is ten (permitting use of an extra F4 and F5 card, plus numerous combinations) if both Thompsons go into the maneuver group. If that group can reach RR5 to the enemy, it will wield a respectable FP16. In theory this organization matches up well with the standard six-man German firebase and its RR1 FP of nine. In practice, it's usually a horrid mis-match.

The game begins with the German playing first from a five-card hand. With a FP of four at RR0, there are twenty useable Fire cards available to the German, or about an eighth of the deck. Thus, 51.2% of all Patrols will begin with a German fire attack on an unentrenched, low-morale, eight-man American group. Even if the Yanks have found some starting cover, the targets are so many and the morale so poor that an attack, even an attack of "0" or "−1", will likely pin someone in the group. Unable to play and discard simultaneously, the GIs will often throw away Movement cards, terrain cards, usable Fire cards in a desperate search for a Rally card. Of course, they remain unentrenched. Once the firebase is in disarray, the Germans are

free to advance into good terrain at their leisure, slowly chewing the Americans to pieces at RR1.

Other formations are equally unpromising. We can put Smith and Watson into the maneuver group and replace them with sturdier fellows, bringing the firebase morale up closer to that of the German's. But there are still eight targets for any attack, making the odds for *someone* getting pinned 25% higher than an equivalent attack on the six-man German firebase. And of course the odds of the Blues Brothers making it unscathed to RR4 for the victory are next to nil. With this formation, the "maneuver group" is actually the "find-a-Gully" group. They can only hope to reach RR1 to challenge a rush forward by the Bernhoff. Not too likely.

A third option is to put Watson alone with Sgt. Burnett in Group A, hoping to win with sheer firepower out of a massive Group B. But with *ten* targets to draw cards on, including two Morale 2 men and the craven Smith, this oversized mob will rarely do more than look around for Rally cards.

For a long time the most hopeful, and interesting, strategy was to throw the Blues Brothers away in a separate Group A, going with a six-man firebase of FP7 or FP8 at RR1 (again depending on where the ASL is placed) and a four-man maneuver group in C. The American is then essentially playing a ten-on-ten game with the German player. Unfortunately, this too usually falls short (see Don Greenwood's try with in the Series Replay in Vol. 21, No. 1). An American firebase of FP7 with smoke protection of FP8 without it is simply not going to stand up against the German FP9 at RR1 and FP10 at RR2. That one or two FP difference translates into six or twelve chances over the course of three decks for the Germans to play an F4 or F5 card on their opposite numbers—a card which they need not fear themselves. It also means any successful flanking move will permit the Germans to use any Fire card in the deck, right up to and including those game-ending F8s.

Most recently, a viable alternative to the traditional groupings has emerged. The "Harvester Spread" calls for a firebase in the unconventional Group A position, consisting of the four highest morale riflemen and the BAR. The Blues Brothers occupy Group B, and the two Thompsons start with one Morale 3 and two Morale 2 riflemen in Group C. With the first available Movement card, a lateral group transfer is made to Group D. (The Russian Variation of the "Harvester Spread" has also proven effective, with a starting alignment of 6-2-2-5 and no group transfer necessary.)

The theory is that the six-man German firebase in Group B (with firepower at ranges 0-5 of 4, 9, 10, 15, 17, and 23) is unbeatable in a direct confrontation. The only way the American can match German firepower is with a hopelessly big and fragile eight- or ten-man group. The "Harvester Spread" forces the German to choose which American five-man group it will be adjacent to. The other one will enjoy a −1 range differential relative to the German firebase.

If the German shifts his firebase to Group C, following the maneuver group, the American Group

D will find a Gully or keep moving right. Group A will then be free to advance to RR1 facing only the German LMG, or three rifles from Group A. From RR1, it can square off against the German maneuver group with all the odds on its side: a firepower advantage of 7-3 at RR1, 12-7 at RR3, and better than a full point's morale superiority per man. There is even the possibility of Smith and Watson sneaking in for a flank attack.

Realizing the potential mismatch, the German may keep his firebase at B and attempt to defeat the GIs in detail, overwhelming Group A before Group D can advance to achieve victory conditions. If the maneuver group is not followed, it must advance as rapidly as possible while Group A hunkers down for a siege. They may even retreat to RR −1. There is a good chance that with their high morale and small target size, Group A will hold out, permitting the Americans to advance far enough to win on Victory Points even if they don't achieve an outright victory.

An additional bonus to my "Harvester Spread" is the potential for the Blues Brothers to actually make themselves useful. Besides the obvious fact that they are not around to pin down either major group, and that presence in Group B allows sufficient spread with a single group transfer, Smith and Watson have more to offer. Admittedly, the chances of their accomplishing an effective flank attack on German Group A are slim. But if the Germans transfer to C, Smith and Watson can move right with them, permitting a flank attack by U.S. Group D which cannot be answered.

I've a few more possibilities for the "Deadly-Dull Duo" of Smith and Watson. They will generally be ignored while German fire is directed to the main American threats. This may allow them to make an advance or two unchallenged for some cheap VP. They can use low-value Fire cards, freeing the big groups for other actions and obviating the potential for a malfunction where it would hurt the most.

Unfortunately, the "Harvester Spread" works best against opponents who may have not read this article. They are the ones most likely to transfer their firebase to Group C and allow your own Group A to beat up on the German maneuver group. The most effective German response is to advance with the firebase to RR1 (facing only FP7 from the smallish Group A) and play for flank attack. The dearth of American Movement cards and the maneuver group's low morale will make it hard for them to advance closer than RR2 towards the victory conditions. Meanwhile, the outgunned U.S. Group A is likely to disappear before you reach that third deck.

In the 30% or so games when the Americans have beaten the Germans in this scenario, it has almost always been due to German overconfidence. Having reduced the Americans to the proverbial cowering mob, they advance without a backup Movement card and land in Wire or a Stream. German stupidity is the American's best (almost only) hope.

How tragic. Worse yet—how boring. Yes, the best American strategy is to hope for a Stream card. Their fate is in another's hands.

"If only we had a real man, a true leader," I mussed one night as I pondered another shameful debacle. "If only there could rise up a soldier worthy of representing America's highest ideals. Someone steeped in the rugged individualist tradition of Davy Crockett, Teddy Rossevelt, and Sgt. York." Then I knew him.

He was walking towards me from the comic pages of memory. Crew-cut, with a sweat-beaded brow. A two-day's beard on his steely jaw. Muscles rippling beneath the shreds of his G.I. jacket. A Thompson suubmachine gun held carelessly in one hand. Could it be? Yes!! Ready to leap into action on my own specially prepared *UP FRONT* personality card—it was SERGEANT ROCK OF EASY COMPANY!

In preparing this article, I realized (sadly) that some of the younger readers might not be familiar with "Sgt. Rock". I checked the current comic book stands to see if he was still around. The situation was worse than I had feared. The only soldier comic on the stands was "G.I. Joe"—a *doll* for crying out loud! There wasn't a Nazi in sight; Joe has just defeated a bald-headed guy named "Serpentor"—bloodlessly?!? The Vietnam War has, in my opinion, improved America's approach to foreign policy. But it has wreaked havoc with our comic books.

"Sgt. Rock of Easy Company" was a staple of my pre-adolescent, pre-Vietnam childhood. Muscles bulging and eyes glaring, he did to Nazis what I wanted to do to parents, teachers and schoolyard bullies. He annihilated them! No A-Team prisoner-taking for Sgt. Rock. He *killed* people. Hand grenades flew into pillbox gun slits at forty yards. He dodged machinegun bullets like Jim Brown dodged tacklers. He thrived on jumping into trenches and kicking the inhabitants into unconsciousness. His favorite tactic (this seemed to happen every other issue) was to leap down onto the turret of a Tiger Mk.VI and fire his Thompson down the hatch. Inevitably, the turret would rip clear off the chassis as the ammo blew up inside, with Rock leaping clear at the last moment.

Ah, sweet memories. Clearly, what the American squad in *UP FRONT* needs is nothing less than the ol' Rock himself. Not just to make the American squad competitive, but to make it fun. I can just take so much of the history lesson in my gaming. Remember, game designers—most of us gamers have been "realistic" all day long. When it's game time, I for one want to *play*. Everyone is of course free to develop their own Sgt. Rock, but mine has been playtested and found very satisfactory. Without him, the Americans cheer when they reach RR1. With him, every game is an adventure.

My Sgt. Rock is armed with a Thompson, but it is no ordinary gun. It never malfunctions (in fact, I don't think I ever saw it run out of ammunition in the comics). And against AFVs, its ammo-seeking bullets give Rock the equivalent of a Demo Charge (+4) in any attacks. Sgt. Rock's firepower at RR5 is FP9, but that's not because of the super-Thompson. At close range, Sgt. Rock fires one-handed from the hip while throwing grenades with the other.

Sgt. Rock's morale is "8"—a wound or KIA for any lesser man. The rationale here is simply that Sgt. Rock never actually dives for cover, but he may get knocked down by the concussion of a shell blast or by slugs bouncing off his helmet and/or dogtags (a result of "8" also inevitably rips the shirt off Sarge's chest, revealing his massive torso). Unlike in the comics (we must be fair—you do have an opponent), the Rock can be killed. His KIA is "9", or "10" when pinned.

Rock's Morale 8 plus CCV three for the Thompson gives him a CCV of "11", equal to Japan's Okimoto with a rifle. His Morale 8 means he automatically passes all morale checks prior to infiltration or close combat.

Sgt. Rock is *never* routed, and he never panics.

Once per game, Sgt. Rock may, without the play of any card, declare himself a Hero. He may conduct any action that a Hero card allows in the player's one turn. He now has the potential, at RR5, of using any Fire card in the deck all by himself.

The effect of Sgt. Rock's insertion into our Patrol encounters has been dramatic. Smith and Watson are still around for slapstick comedy, but a true American hero is also on the scene to save the day. All the American strategies discussed above are still valid, but now they pack offensive dynamite. Let's review them, with Sgt. Rock in charge:

1.) The four-man maneuver group at A backed with an eight-man firebase with FP9 or FP10 now moves forward with a RR5 fire potential of 18 or

20. Instead of the Morale 4 Sgt. Burnett (sorry Jim), advancing under the most ideal conditions, we have Sgt. Rock who might even leave pinned men behind in order to close with the enemy. If some of the firebase is pinned, as it usually is, not to worry! At least no need to sit idly by drawing for Rally cards. Rock moves forward without covering fire, shrugging off attacks of 5FP, 6FP or 7FP along the way.

2.) The ten-man firebase with two-man throwaway is now a ten-man launcher for a two-man torpedo. Sgt. Rock and Pvt. ("Bulldog") Myers, who is a Morale 5/CCV10, can stomp on any four-man German group that gets in their way. As they move in, they will draw fire otherwise headed for the firebase, which now has a vastly improved chance to reach RR1 in good terrain and to start mauling people with their FP11. Once the Germans are pinned, Rock and Myers infiltrate and quickly dispatch the survivors with their fists and high CCVs.

3.) Leaving Smith and Watson behind in Group A and going for the end run with a four-man Group C now takes on a whole new flavor. Instead of an under-manned firebase and a mediocre maneuver group, we now have a Green Bay Packer power sweep. If the Germans don't shift to follow an American lateral group transfer to D, they'll never be stopped. If they do shift, they risk the old Wire/Stream-in-the-six-card-hand trick forever. If they pass this hurdle and succeed in knocking out a GI, thus denying the group its victory conditions, they still must contend with an enraged Rock passing them by to achieve a natural flanking position. If that happens, you can kiss your *wienerschnitzel* goodbye.

Enthusiastic language and humor aside, the presence of a Sgt. Rock type does not unbalance the *UP FRONT* Patrol scenario—it balances it, and makes it much less predictable. None of the above tactics provide a guaranteed win with a Rock-led American squad. In our games, the two-man attack group was as likely to go down under sheer weight of numbers as to win the game. Similarly, Rock can lead an overly-aggressive four-man group to disaster. If the American player starts to think his whole squad is bullet-proof like the Rock, he will get into big trouble quickly. Sometimes the mere threat of a Rock attack is more potent than the actual event. For this reason, the automatic Hero power should be husbanded, never being unleashed until the results will almost certainly be lethal. Besides, if you have the option of waiting, an actual Hero card may find itself into your hand, leaving you with the opportunity for a two-turn orgy of heroism.

UP FRONT by its nature is a personality-level wargame allows room for imaginative involvement that other games can't approach. Can we really get emotionally involved over the fate of the 4th Guards Infantry? But the survival of an isolated Chernenko, bravely brandishing his jammed bolt-action rifle, can matter a great deal. I hope that this article will lead some doubters to try to brighten the world of *UP FRONT*, and might lead in time to other personality-scale wargames.

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PRELUDE TO THE STORM OVER ARNHEM
A Historical Perspective
By Chuck Lane

The heroic defense of the Arnhem bridgehead by elements of the British 1st Airborne Division has been well documented; but a game concerning the battle in Arnhem had been conspicuously absent until the publication of *STORM OVER ARNHEM*. It proved to adequately fill the void, and to be personally pleasing for me due to my longstanding serious interest in the battle. After playing the then new game and carefully following the helpful Series Replay in The *GENERAL* (Vol. 19, No. 1), I was favorably impressed by this unusual simulation of street-fighting. Don Greenwood and Courtney Allen had created a game which combines playability with realism in an enjoyable wargame with many facets. The purpose of this article is to briefly review the game's strengths and to recommend, at length, a few revisions to enhance the historical accuracy as well as maintain balance andd ease of play.

My interest in the action at Arnhem was first sparked in the 1960s by the publication of several excellent accounts of Operation "Market Garden". Books written by Hibbert, Bauer and Urqhart provided useful detail for wargamers interested in accurate descriptions of the Arnhem operation. Inspired by these books, I visited Arnhem in 1968 and in 1972 while on summer vacations in Europe. I carefully toured the battlefield, from the landing zones to the bridge—both on foot and by bicycle. While visiting the town, I was gratified that the Dutch inhabitants were pleased to share their wartime experiences with me; the British and Americans are highly regarded as liberators of the region by those who remember the war. Guided by some of the remarkable photographs of the action, I observed that most historical points of interest are surprisingly well-preserved and marked by monuments, plaques, and even a small museum in Oosterbeek. Aside from several city blocks completely rebuilt after being demolished in the war, most key battlefield features remain unchanged. For those enamoured by military history, the immaculate Airborne Cemetery in Oosterbeek containing 1300 Allied graves and the simple monument at the reconstructed Arnhem bridge are somber reminders of the sacrifices made there. True wargamers can imagine my emotions as I stood on the bridge and contemplated the river which appears so narrow, yet proved so wide in 1944.

Gamers familliar with the battle at Arnhem bridge realize that the small unit clashes in the streets and buildings do not lend themselves readily to simple simulation methods. Most squad-level wargames are too complex for my taste, so I found the mechanics of play for *SOA* to be a pleasant surprise. The game recreates streetfighting abstractly with rules that are well-written, easily understood and mercifully short. Movement and combat are resolved by unique systems which were refreshingly original in concept. The mapboard is pleasing to the eye, functional and wonderfully accurate in block and building scale. Attention to historical detail is evident throughout the game, yet playability is not sacrificed. Most game components are easy to use and facilitate play, although some of the systems seem awkward at first (due to their unfamiliarity). The game is obviously balanced (perhaps a bit too much so) and evolves fairly realistically. It has no serious weaknesses, but there are a few flaws which I feel merit resolution.

My main concern involves beginning the game on September 18th. This denies the players the opportunity to recreate the vital phases of establishing a perimeter and resolving the famous battles for

the bridge. Despite the Random Events Table and some set-up flexibility, the game lacks the more enjoyable dimensions possible by recreating the *entire* battle in the town. I cannot accept the suggestion that a complete simulation beginning on September 17th must be unbalanced, unnecessarily long or unexciting. I believe the opposite to be true in fact, since the extra turns are well worth the historical accuracy, enjoyment and flexibility they generate if organized properly. Any game of Arnhem which omits the first 12 hours of the battle must be revised!

I especially disagree with the designer's statement that, "The German garrison had no chance to seriously impede the British advance at the outset." Such an explanation for the omission of 12 hours of combat suggests that the designers have improperly evaluated the ability of small German units to interfere with the airborne advance into Arnhem on September 17th. The unexpected presence of well-armed and determined German troops throughout the area was directly responsible for the small number of British men who did ultimately reach their objectives. Repeatedly, small German units delayed the advance of entire British companies by using aggressive tactics at key points. C Company, 2nd Battalion was surrounded and destroyed in the dark near Arnhem station on the 17th, only a few minutes march from the bridge. By sheer chance, the lead elements of Frost's battalion missed contact with Graebner's Recon Battalion as it crossed the Arnhem bridge heading south at about 7:30 Sunday evening. If even a portion of these units had clashed then, the battle would certainly have evolved quite differently. The spirited defense by German troops in buildings #2 and on the bridge itself ruined British plans and could have been disastrous for Frost had he not dealt so successfully with them. The movement to the bridge, battle for control of it, and the establishment of the perimeter were impeded repeatedly by unexpected German resistance. The 12 hours of play they represent can be enjoyable to simulate, directly affect dispositions and are a vital element of any credible Arnhem game. Each commander must be permitted to control the actions or his troops on September 17th as part of the "standard" game—not as a variant afterthought.

The publication of "The Crossing" (Vol. 19, No. 1) and the references to it in the origianl rules book suggests that the designers were aware of this shortcoming, but the remedy for the situation is inadequate and unnecessarily complex. Some rule changes certainly need to be made to accommodate the extra turns to begin play on September 17th, but a number of the additional rules are a burden which deviate from normal rules yet still fail to accurately reflect the prelude that was omitted. In order to begin play on the 17th, the following revisions are intended for use in the entire *STORM OVER ARNHEM* game:

Play begins on Sunday, September 17th, in daylight with the Turn marker on *Turn A*. Three additional turns are added to the game—A, B and C (instead of the two in "The Crossing"). Turn A includes the daylight evening hours of the 17th; this turn is needed to permit British units to advance against opposition to the bridge. Wartime "double daylight savings time" extended daylight to nearly 10PM, and photographs cleary show British troops approaching on Eusibus Plein by the bridge and elsewhere in town in daylight on the 17th. These troops

had marched in column for approximately eight miles since landing. Their total movement factor in column would be far greater than that included in the game system; so in Turn A, using the regular movement factor, the final portion of their march is accurately reflected.

Turn B is a *night* turn during which substantial British reinforcements joined Frost to combat the earliest German arrivals. Daylight Turn C provides time for Graebner's attack and the arrival of the last certain British support. I believe a three-turn addition is much superior to the two-turn variant because it more accurately reflects the piecemeal build-up of opposing forces, provides more opportunity for creating combat that did occur, and—above all—requires very little additional rules modifications.

To permit combat on the bridge, an additional area (#31) must be created adjoining areas #4 and #5 encompassing the bridge. The addition of this area, which is treated in the same fashion as all others in the game, permits the normal application of all game rules.

The game begins during Sunday afternoon, September 17th, with the game turn marker on "A" and the British player in possession of the Tactical Advantage. If he does not make use of it, the British player will control the Tactical Advantage until the start of Turn 3 when it will switch to the German automatically. The German player is in control of all Victory Point areas at start (Turn A) and may receive Victory Points for any areas he still controls at the end of turns A, B or C—but cannot receive points for reducing the British perimeter until Turn 1.

1.0 ADDITIONAL UNITS:

1.1 PILLBOX [4-X-0] is set up in Area #4 to start the game. The pillbox may only attack/be attacked during the Close Combat Phase. Only those units in Area #4 which are designated to attack it may be attacked by the pillbox. Therefore, regardless of who controls the Tactical Advantage, the British player must designate his Close Combat in this area first. The pillbox does not affect enemy movement or stacking limits in any way. (*EXC:* British units may not enter Area #31 until the pillbox has been eliminated in Close Combat.) The pillbox does *not* count as a German unit for control of Victory Point areas.

1.2 ARNHEM GARRISON consists of two 2-5-5 infantry units and a 2-6-5 HQ unit which start the game in Area #23. If all three units fire together, they do receive a +1 DRM for platoon integrity. These units function in the same manner as all other infantry units and HQ units throughout turns A, B and C as well as for the remainder of the game. These units affect British movement according to normal game rules throughout play.

1.3 9SS RECON consists of two 3-3-10 PSW 231 armored car units, four 3-2-8 SPW 250 halftrack units and three 4-6-6 Infantry Recon units. The one 9th SS armored car unit in the original game set-up is removed and must enter the game instead with the other 9th SS Recon units on Turn C in Area #31 as in Rule 3.41. The 9th SS Recon infantry units must enter the game in Area #31 as in 3.41 as well. The 9th SS Recon infantry do not qualify for platoon integrity.

2.0 SET-UP:

2.1 TURN A: The following British units set up in Zone E: A Co, A Co HQ, 2nd BN HQ, one unit

of AL AT Btty, 1 Para Sqn RE, 2nd BN HQ Co (four 5-8-5s; see the comments below). The German Pillbox is set up in Area #4 (as per 1.1 above). The Arnhem Garrison is set up in Area #23 (as per 1.2 above).

NOTE: All German and British units move according to their normal movement factors; but during their initial turn on the mapboard, British AT units have a movement factor of "5", reduced to "1" thereafter.

2.2 TURN B: The following British units set up in Zone E: C Co, C Co HQ, one 5-8-5 RECON Sqn, RECON HQ, 9 FD Co RE, RASC Platoon, DEF Platoon, Bde HQ. The following German units set up in Area #31: two 9th SS Recon 4-6-6 and one 3-3-10 armored car.

2.3 TURN C: The following British units set up in Zone E: B Co, B Co HQ, and one unit of AL AT Btty. The following German units set up in Area #31: one 9th SS Recon 3-3-10, four 3-2-8 halftracks, one 4-6-6 infantry and 2-7-6 Recon HQ. The following German units set up in any white area designation number on a black circular field: the 10th SS Armored Recon Company (nine 4-6-6s and HQ); these units may be set up in any combination of areas desired even if occupied by a British unit (apply all normal rules for movement after).

2.4 TURN 1: The British receives no additional units. The German Bocholt Training Battalion is placed in Zones A or B as in the standard game. The remainder of the 10th SS (less the Armored Recon units above) commence play as listed on the Order of Battle.

3.0 SPECIAL RULES:

3.1 All British and German units commence play uncommitted. All British and German units move at normal rate and with normal movement factor. (*EXC:* The two British AT units have a MF of "5" during the initial turn they are in play, reverting back to "1" thereafter.)

3.2 Neither side may enter a perimeter zone during Turn A (except, of course, during set-up). Movement is allowed in all zones thereafter.

3.3 The Random Events Table and Setting Fires rules are not applied until Turn 1. All other rules are enforced normally.

3.31 British artillery and AT fire *may* be used against German units in Area #31 according to normal rules. British artillery fire is available commencing with Turn C.

3.32 German artillery fire is available commencing with Turn 1; but German S-Area artillery fire is available commencing on Turn C.

3.4 All German and British units set up uncommitted in the zones or areas indicated, even if occupied by an enemy unit at the time. Movement into or out of a set-up area or zone occupied by an enemy unit is governed at all times by normal movement rules.

3.5 At the start of Turn 1, the six British perimeter control counters are placed by the German player on any six areas currently occupied by the British. These areas cannot be Victory Point areas but may contain German units if there are not enough areas solely occupied by British units. If the British player does not currently occupy six such areas, the German player may select other areas which are currently unoccupied but were last transited by the British to fulfill the limit of six perimeter areas. If the German player is still unable to specify six perimeter areas, he receives two VP for each counter not placed. Under no circumstances may the German specify more than six perimeter areas.

3.6 Each player may have a maximum of three infantry and three armored units in Area #31 during any movement/fire phase. Only during set up of new units may stacking limitations of Area #31 be

exceeded, and stacking limitations must be satisfied during the first available Movement Phase. Retreat is not possible from Area #31 if enemy units are present in Areas #4 *and* #5.

3.7 The game continues normally from Turn 1 as in the Basic Game rules, noting only the alteration for the German pillbox.

4.0 VICTORY CONDITIONS: The German player begins the game with his Victory Point marker in the −2 block as a play-balance adjustment.

These revisions differ from "The Crossing" variant in a number of important respects. The addition of Area #31 covering the bridge allows play to be resolved according to the standard rules and provides both players with optional methods of conducting the battle for the bridge. German units may elect to fire from Area #31 (representing the bridge and its southern approaches) or enter Areas #4 and/or #5 to execute close combat. The special movement capabilities of any surviving armor may prove troublesome and keep the British guessing. On the other hand, the British player may use artillery or anti-tank fire against armor remaining in #31, or attack infantry there with normal fire. Of course, a close assault is also possible in an emergency—but the occupation limits of the bridge force the Germans to sometimes move first. The variety of courses of action open to both players may result in differing casualty levels and troop dispositions each time the game is played. Attention will be focused directly on the bridge in the earliest turns—which is precisely in order historically. Obviously, the German player has little hope of achieving success in those early turns, but the diversion of resources by both sides to the bridge itself is a key element in the simulation. Important historical considerations have been recreated with a minimum of modifications.

I would like to address the rest of this article to a discussion of a number of deficiencies in *STORM OVER ARNHEM*. Most involve shortcomings in the Order of Battle. The British and German OBs are certainly accurate according to unit type and parent designation, but I question the number and strength of particular units. The various accounts of the battle fail to specify the exact composition of all combat forces, nor does the information that *is* available necessarily agree. This is, in large part, due to the isolated and ferocious nature of the engagement during which accurate unit records were nearly impossible to maintain. Nevertheless, I find a number of assumptions made by the designers puzzling in light of the detailed information that is accessible in some instances. I have long suspected that some strength assignments made by the designers were intended to modify play-balance.

For example, careful study of source material suggests that the strength of the British Recon Squadron, Para Ambulance and Headquarters company, as well as the German tank and mortar units were inadequately assessed. Further, the designer's use of the figure of 600-700 men for the total strength under Frost (per the *British Official History*) can only be achieved if: 1) the troops of the isolated C Co 2nd Battalion are included, and 2) every British unit is at full strength. Obviously Frost never benefitted from these, and a more commonly accepted figure of a maximum of 600 troops (Wilmot's *The Struggle for Europe*) would seem more realistic. Indeed, other sources suggest that Frost's effectives numbered only between 400 and 500—so the figre of 700 simply is an overstatement.

The inclusion of the 16th Para Field Ambulance squad as a combat unit places it in a role it never performed. British airborne medics often were conscientious objectors specifically chosen to perform non-combat roles (see Crookenden, *DropZone Normandy*). The Red Cross operatives were respected

throughout the Arnhem battle, and I have not located a single instance of medics participating in battle. Clearly, this unit should not be included in the order of battle. Trying to flesh out the British forces? Well, it would be more justified to include the Royal Artillery Signals squad, which eventually joined the street fighting after wireless contact broke down. This unit clearly occupied a defensive position (according to Urqhart's book) and would be far more realistic to include in as the medics. The RAS can be substituted in as a 3-6-5 infantry unit.

The evaluation of the strength of the Recon Squadron under Major Gough is especially suspect; the squadron in the game has too many units and the individual units are too weak. Major Gough's alone unit represents five squads plus an HQ, or approximately 60 men with five men to a jeep. This force would require some 12 vehicles, or almost a third of the entire squadron—far too many. Urqhart states that Gough's command jeep was escorted by only one in the final stages of his attempts to locate the division commander. Eventually, Gough drove along the river road into Arnhem where he joined Frost, who described his force as a "party"—hardly 60 men. Gough was joined by one other jeepload of troopers to bring his force to a total of 18 men, only a fraction of the expected force (Fairley, *History of the Reconnaissance Squadron*). These factual references should replace estimations and thus credit the Recon Squadron with one squad and a HQ unit. Further, the Recon squad should be rated as a 5-8-5, since these men were the elite veterans of the elite force, specially trained and equipped as sappers.

The omission of the 2nd Battalion HQ Co is the most perplexing oversight of all. The designers state that the HQ Co strength is abstractly included, since the unit was "spread out among the other companies". Not exactly. How can we "abstractly" represent dozens of armed men and yet include the Para medics? The HQ Company's strength may have been loaned out in terms of firepower at times, but its location through the battle is well known and documented. The HQ Co was one of the first units to reach the bridge with Frost, and it held a vital four buildings in Area #18 until the bitter end. The HQ Co at full strength included a Vickers MG platoon and a 3-inch mortar platoon, whose weapons were the most effective of those of the airborne forces of World War II according to Crookenden. Their heavy weapons were emplaced close to HQ command and were the heart of the defense troops. They cannot be accounted for by other HQ units, or by the Defense Platoon guarding Brigade HQ. References to HQ Co strength at Arnhem state that the unit had about 50 men in action (Hibbert, *The Battle of Arnhem*) and conservatively should be represented by four 5-8-5s to represent the power and effectiveness of this unit.

Thus, these revisions would delete a 3-6-5 and four 3-7-5s and replace them with another 3-6-5 (optional) and five 5-8-5s. Obviously, this is an improvement in British strength and it more truly represents the true British organization in the town. The following strength assessment summarizes British forces:

Non-combat 16th Field Ambulance:	13
Royal Artillery Signals Squad:	13
Parachute Infantry (24 squads):	296
Engineers:	74
Recon Squad:	12
Royal Army Service Corps (3 squads):	37
Defense Platoon (3 squads):	37
AL AT Battery (6 guns):	37
A, B & C Headquarters:	36
Recon Headquarters:	6
2nd Battalion Headquarters:	12
Brigade Headquarters:	18
HQ Company (4 squads):	50
Full Strength Total:	**641**

Note that these totals can be arrived at only by counting every possible man with all units at full strength. Considering the documented losses which occurred during the airlandings and the march to the bridge, it is obvious that the figure of 700 men is too high (as is 600 actually). To begin the basic game as designed with such strong forces would be improper (especially considering the battles at the bridge during the early hours—turns A, B and C). It is important that the actual strength of the British forces be carefully reflected if the game is to be considered accurate. I do not feel the British OB is correct in detail, nor even in generality if play commences on September 18th. Only by beginning the game on September 17th, before the first battles, can the current OB be considered roughly accurate.

The German order of battle is much more accurate and its unit strengths appear to be reasonable. However, I believe the capabilities of the tank and heavy weapons (mortar) units are not properly reflected. The ten tanks of the Bocholt Battalion are represented by only three 4-5-8s, which gives them the firepower of only a single British infantry platoon. Even considering the protection provided by the special armor rules, the relative weakness of the tanks (and all other armor for that matter) leads to a distinct lack of realism in the game. The German must be careful not to expose his armor to much fire for fear of losing them suddenly. In effect, the British units are more of a threat to the tanks than can be supported historically. The designers base this, presumably, on their statement that "armor was always at a disadvantage in urban areas." This is not the case in Arnhem where paratroopers were inadequately armed against armor, and ultimately the tanks proved to be the decisive weapon in close combat in the inner perimeter battles. Piats, Gammon bombs and 6-pounder AT guns proved only marginally effective even against obsolete tanks, and were useless as ammunition ran low. German tanks were relied upon to lead assaults and were frequently deployed in critical tactical situations. In game play, the tanks are too few in number and relatively weak in relation to the serious impact they actually had upon the battle. The rules adequately reflect the defensive vulnerability of tanks, but not their true offensive value.

The Bocholt Battalion tanks need more strength of a progressive type that will not be overwhelming instantly, but rather will provide continuous pressure. To encourage the German player to use his tanks aggressively, he should be permitted to replace any three Bocholt tanks eliminated by any cause. Tanks eliminated (including those which are replacements themselves) may be returned to play in any phase of the following turn. A maximum of three units may be replaced (all three in the same turn if lost at once) by beginning a turn in any Zone not occupied by a British unit. This replacement rule does *not* apply to the 506th Tank units.

This rule is especially justified because the designers have not included any of the odd tanks which may also have been in Arnhem (i.e., the Mark IVs) whose presence near the bridge was variously reported but never verified after the collapse. Under these rules, the German player will have available the tank strength which was so crucial to German success. German tanks can thereby be used in a more realistic fashion with less fear of tactical loss. In turn, the British player will face the dilemma of eliminating tanks only to have more appear.

The heavy weapons of the 10th SS are represented by three engineer units, two SPW 250 halftracks and artillery fire in the form of the 8(6) 10th Recon offboard artillery. Presumably, German mortar fire is reflected by the offboard heavy weapons company, but I do not believe this arrangement represents the true nature of mortar barrages by the Germans in Arnhem. German mortars ("stonks" as the Brit-

ish named them) were a constant source of casualties, stress and disruption for the paratroopers. German mortar strength was heavily reinforced throughout the battle, had access to virtually unlimited stocks of ammunition and was directed with devastating accuracy around the clock into even the most built-up areas. Mortars caused British casualties in many areas simultaneously, firing for hours without pause in support of the small assaults. The game would benefit from rules which reflect a broader application of mortar fire throughout the battle area, rather than a heavy concentration of limited duration as found in the present rules. The serious effect of this heavy weapons fire should be modified, but not diminished.

The 8(6) 10th SS Recon offboard artillery should be withdrawn from normal play until Turn 4, when it becomes available according to normal rules. This would represent the arrival of various heavy weapons dispatched from Germany to support the Arnhem operations. Mortar fire would function separately from the artillery, but more simply since it requuired less sophisticated spotting. Mortar fire should be represented by a provision of a +1 Attack Value Modifier for the German, available to support a maximum of four daylight and two night attacks (excluding close combat) during each game turn commencing with Turn 1. Mortar fire requires no HQ spotting and may be used under any circumstances desired. Mortar fire was readily available in this fashion and required much less complicated fire control than artillery. Mortar fire may not be applied by itself, nor may it be accumulated. Only a maximum +1 may be applied to any attack the German may desire. I find these rules more accurately reflect the true nature of the mortar fire, as well as representing the actual addition of the heavier artillery units later in the battle.

The Fire Setting rules are a good example of the designer's many efforts to include historical detail to improve authenticity. These rules are excellent mechanically, but unrealistically permit common infantry to function in a fashion for which they were neither trained or equipped. The serious fires which engulfed buildings were caused primarily by combat engineers using flamethrowers or incendiaries or by tanks firing phosphorous shells. The rules should be revised to permit only designated Engineer or tank units to set fires (with each counting as three units to determine results). Since the British also set several fires early in the battle, British engineers should be permitted this capability a maximum of twice prior to Turn 6 (but not in turns A-C). There is no limit to the number of fires the German player may set. This rule modification will enhance the importance of the engineer and tank units, and increase the likelihood of their application in a realistic fashion.

The tactical use of HQ units, especially the British, is occasionally exceptionally unrealistic—particularly when an HQ is used as a sacrifice or in a blocking role. An HQ unit represents the elite leadership of the paratroopers, which was too important organizationally and for morale to be committed hopelessly for a limited gain. To reduce the possibility of purposeful sacrifice of an HQ, *all* HQ units are prohibited from moving into an area that does not contain friendly troops. (*EXC:* if there is no alternative to doing so, an HQ may move into an unoccupied area in the order presented in the Retreat Priority rules.) Notice that this rule does not preclude an HQ from ending a turn in an area by itself (after other units have moved out), but it will reduce the unrealistic use of these valuable units.

The night rules affecting artillery, infiltration and fire are a good start toward simulating night conditions. However, they do not limit night activity enough. With a few exceptions, nightfall usually marked the cessation of serious firefights and active offensive tactics in the battle of Arnhem. As the battle dragged on, troops on both sides relied upon

the night to grab a little sleep to control the fatigue which affected everyone. Heavy firing and combat resumed in earnest at dawn and many accounts specifically mention the reduction of combat due to darkness and exhaustion. New night rules, in addition to those in effect, should be included to reduce combat at night even more. Therefore, any German and British onboard units which fire at night (excluding close combat) *must* begin the next daylight turn committed. This severe penalty will discourage all but the most important attacks at night and will also serve to reduce playing time in a realistic fashion. The typical night movements and close combats are in no way affected.

Although the mapboard perfectly reflects most terrain relationships in Arnhem, the important British advantage gained by defending the superior defensive positions of the Victory Point areas printed on the mapboard is not adequately reflected to my mind. The paratroopers selected particular houses and blocks because they provided unobstructed, interlocking fields of fire. The soundness of the brick and stone, as well as the height and even spacing, provided defensive positions unequalled in the entire town. Other blocks lacked the advantages of the interior perimeter due to their close proximity to one another, poor visibility, or inferior construction. Areas #4, #5, #17, #18, #22 and #23 contain buildings whose defensive advantages were so superior to others that the British were able to hold them for over 72 hours.

The sturdiness of the British units commanded by Frost was to a certain degree due to their elite status, but their superb positions defied destruction and were not abandoned until ammunition and manpower were exhausted. Even when leveled by point-blank fire, the rubble was reoccupied and effectively defended. My point here is that this advantage should be included in the Defense Value (DF). British units of all types defending areas #4, #5, #17, #18, #22 and #23 should receive a +2 DF when attacked by fire. The +2 does not apply in close combat, but it may be applied any number of times in the game regardless of the presence of German units in the area defended. (*EXC:* the +2 DF advantage is *not* available to British units defending an area in which a +1 or +2 fire has been set by either player.) This rule will encourage the British player to defend the perimeter for reasons in addition to mere Victory Points, troop dispositions will be more realistic, and the combat bonus will help counteract other German advantages. In turn, the German player will be more inclined to use infiltration, tanks and fire rles to redce these strongholds.

The Ammunition Shortage rules are useful, but they too fail to reflect the exhaustion of British AT ammunition around Turn 8. When the Germans realized that the British had no means to stopping tanks, they used them with impunity to spearhead the final assaults near the bridge. To recreate this disastrous situation for the British, no British unit (including AT batteries) may attack a tank unit (either in fire or close combat) beginning on Turn 8. The only exception would be that British artilllery could attack tanks if it is still available. Clearly, the armor units will be crucial to German success late in the game.

The Random Events Table does a good job of providing the occasional element of uncertainty in the game. *SOA* is well adapted to larger "what-if" variants which can provide additional variety of play through the inclusion of plausible developments which nearly occurred. The purchase of an extra set of playing pieces makes large variations possible, as well as providing spares for those units which go AWOL under the couch. Those familiar with the course of the battle can create any number of situations which provide a different OB based on the arrival of extra units. My favorite has two elements:

A ROCK AND A HARD PLACE
PANZER LEADER Situation #12
By Steve Wheeler

"Prelude: The Saar" is one tough proposition for the Americans. If you've tried it, you'll know what I mean. Your troops are assigned to an area nearly twice what they should be expected to handle, while the enemy enjoys superior equipment, mobility, numbers and the initiative. You're stuck between the proverbial "rock and hard place".

The first dozen times I tried Situation #12, the Americans got trounced 12 times in a row. It looked to me like the most unbalanced scenario in the bunch—especially when the Germans won decisively on the sixth turn. As a matter of fact, I gave ol' #12 up as a bad job for several years. Now or then I'd try a new rule, or I'd beef up the GIs' punch with better tanks or added tank destroyers until the Germans started getting killed. But this wasn't very satisfying. So, what was the story with "Prelude: The Saar"?

It was my work on "Fighting the Panzer Leader" (Vol. 24, No. 2 of The *GENERAL*) that prompted me to take a fresh look. All of the Bulge situations were finely balanced; why not this one? Each player had decisive victory conditions. Didn't that mean that both had an equal shot? I tried the original version again. The Americans lost again, but maybe I was on to something—for it was much closer run. A distant glimmer of hope was shining through, based on ideas of a better set-up and a hint of defense in depth lead me to a series of further playings.

Illustration #1 shows one of my earliest attempts. The GIs have set up to counter a German assault in any sector. They occupy Merden, Nece and Artain in rough parity because I intended to hold fast in the threatened area while the rest of the troops rushed to reinforce or fell back on Caverge. Believe me, this is an American player's nightmare. Any competent panzer leader will overwhelm one of the strongpoints, defeat or drive off arriving reinforcements, then storm through Caverge for a decisive victory both ways. The worst part is the way I made it inevitable that the Germans would take advantage of the old adage, "Divide and Conquer".

Take a close look at the battlefield. The entire length of board D is open to invasion. The only places the Americans can hope to hold out are in Nece and Artain, and those won't last long once panzers gain the high ground. You might hang on in Grancelles a few turns, but 52 panzers and tank destroyers will bury your GIs under collapsed buildings while the panzergrenadiers finish them off without mercy. Unless, of course, the enemy simply detours around the city and levels Caverge for a quick exit and win.

Make no mistake about it, your appreciation of the Victory Conditions and Special Rules make possible not only survival, but decisive victory. Your German opponent must either destroy 19 of your *combat units*, or exit in a restricted area near Caverge. As for you, if the Americans knock off 16 German *units*, or allow only *nine* to exit, victory is all yours. The distinction between "combat units" and "units" boils down to the trucks. U.S. truck losses impact only your transport ability. German trucks destroyed, especially those loaded with crews and equipment, count toward an American win.

While it's true that the Germans can advance anywhere along the map, the Special Rules dictate the only place they can go if he's forced to exit is Caverge. When you avoid getting mauled holding onto suicidally exposed terrain up front, the Germans will have to squeeze through Caverge—where you'll be waiting for them.

Now take a minute to appreciate the set-up restrictions for the situation, and in general. Especially review Section XIV, B.4. Applying B.4 means that your placement can impair the German set-up. He can't begin in hexes in which you can spot his units (see Experimental Rule D in the accompanying sidebar, however). Every approach into the area is open to observation. It's up to you to take advantage of setting up first and to place units in hexes overlooking the approaches. Observers on the main ridge and hilltop areas are vital. They can keep the enemy from beginning at the edge of the board and can spot for your artillery (see Experimental Rule E).

Unfortunately for you, the set-up rules force your American guns to begin on board D. That not only places them within easy reach of marauding Kraut scouts, but howitzers in forward positions offer unusually attractive targets to a veteran panzer leader. You can't afford to lose your only heavy fire support, so you'll have to remove them to safety. Having the guns out of action for several turns is bound to be hard on the GIs.

As you can see from the scenario's OB, over half of your infantry lacks transportation. For at least three turns they're doomed to the front lines, while the halftracks and trucks scramble to make a return trip. If your infantry is jumped at the outset, they are in deep trouble without guns to support and transport to escape. So your set-up is critical any way you slice it. American anti-armor defense is mostly short-ranged (light caliber guns with only a single company of M4 Shermans for real backbone). Your infantry would like to displace with the guns, but most of them are stuck for awhile. You don't have the strength to hold up front, but one hand is tied.

Illustration #2 depicts a tactical version of Napoleon's "central strategy". Napoleon understood the strengths of concentrating his troops on superior lines of communication. In other words, he knew that holding the best road net made his forces more mobile and took that edge away from the enemy. The GIs hold Nece in strength for precisely those reasons. Your troops are concentrated to better withstand a sudden major attack and can move rapidly to any other sector along the shortest routes. That's critical if superior forces compel you to withdraw or react to threats in other areas.

Take a moment to appreciate the particulars of this set-up. Screening the flanks are ths scouts. These cavalrymen occupy key hexes for observation or to deny early German access to draws, villages, roads or a bridge. Grouped well forward to strike hard at an enemy advance on the main road to Nece are your American tanks. Their positions allow them to fall back into covered terrain without giving the enemy a chance to return fire. The infantry and a 57mm section deny first-turn access to Nece from their prepared positions (see Experimental Rules E and F), which also lets them regroup swiftly. All mounted elements are ready to move immediately, especially to final positions around Caverge. An additional infantry company is ready to march into Grancelles where they can meet returning transports or hold off pesky German scouts. Finally, the mortars are stationed in fire support and spotting positions, while the 105s and remaining AT guns are poised for relocation to sites around the exit area (or elsewhere).

A central strategy could induce your enemy to avoid the American concentration and try an end

run. Suppose he decides to swarm through the northern border of the battlefield to capture Caverge for a speedy exit. His entire force will be mounted and moving with vulnerable scouts preceeding and the even more vulnerable trucks, laden with mortars and AA guns, in the rear. Infantry-laden halftracks also present appealing targets, especially if strung out in open terrain. Your M8s force him to begin several hexes away from the edge of board D. That means the Germans will spend at least two turns getting across. By the second turn, you can have ample force gathered to execute a game-winning ploy I call "Biting Off the Tail".

On Turn 1, all your M20 scouts plus a troop each of Shermans and Stuarts assemble south of the Merden ridge. The M8s in Merden were likely trapped and made to fight in place. On the second turn, the enemy is driving west above Einkel. Your scouts should charge over the ridge, down the slope and overrun any vulnerable stacks of trucks or halftracks. The Shermans occupy a slope hex on the ridge's northern face to threaten long-range fire and spot for 105s. The Stuarts either charge like the scouts, or get into Merden to add their own direct fire threat. Let the presence of German tanks determine the best course for the light tanks.

Meanwhile your howitzers must swing into action from the Nece area. Get them ready for a second-turn fire mission and protect them with some infantry. The rest of your troops head for Caverge. You've got to occupy the exit area in strength by the end of the second turn. Aim to shatter the German scouts before his tanks can arrive. Stuarts can reach the area on Turn 1 with your mobile infantry and AT guns. Any Krauts dumb enough to enter Caverge will be in for a nasty shock, especially when ten Shermans roll into range on Turn 2.

From Turn 3 on, the game then becomes a slugging match. If your charging scouts wiped out a pair of stacks near Einkel, you'll be in good shape to inflict the other kills you need for a decisive victory. Keep your howitzers firing on the weakest German stacks, and pick off other targets with direct fire until you win.

If your bite on the German tail yielded less dramatic results, you'll have to be really aggressive at Caverge. Push an infantry company into hex AP4 to help keep the enemy spotted. While the Germans vie for the northern half of Caverge and begin to exit, keep most of your troops out of sight or under cover in woods hexes until conditions are right to execute decisive charges with your armor. Include overruns by surviving scouts. These charges and supporting infantry attacks should coincide with thinning German numbers especially when golden opportunities come up to nail stacks of halftracks or trucks. If none of the thin-skinned targets can be reached, ride down a stack of infantry or even a company of Mk IVs. Remember not to give the enemy a chance to shoot your cavalrymen to bits as they charge home unless you can afford the losses and enough of them will survive to eliminate the target. You might have to fire a smoke screen to shield your charging units, but between howitzer barrages and counterattacks, the American should emerge the decisive winner in a northerly end-run engagement.

A German try along the south edge also leaves his weakest units open to counterattack. But, you'll have to fight each stack and unit as precisely as you
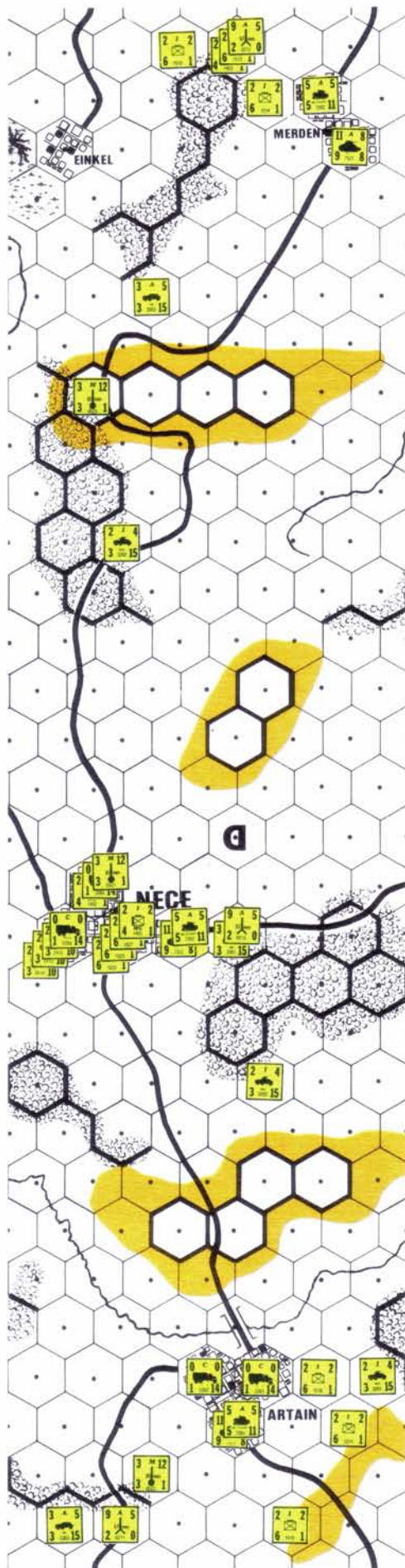
can. Your decisive victory may be won just before the enemy gains his last kills.

An M20 scout on DY7 forces your opponent to set up in the covered hexes southwest of St. Athan. In the first turn, Panthers will mob the ridge southeast of Artain. From there, they can cover recon elements as they secure the woods southwest of town. Your M20s will deny German access to the bridge, but you'll have to move fast to keep ahead of his scouts. Recall your M8s and send them into the woods southeast of Grancelles. Chances are your M20 observer will be lost, but send it along with another to join the M8s if it's still around. The last M20 should block the ridge behind Artain to again deny German access.

While your scouts screen the southern flank, get your howitzers into safe firing positions north of Nece. Such a tantalizing target inside Nece is sure to ignite a panzer leader's interest. Why not spare your artillery a hail of 75mm shells by towing it to DN3?

Since German tanks can be in Caverge within three turns, you have no time to waste. At the close of Turn 1, have all mobile infantry and anti-tank guns inside Caverge or the adjoining woods. Immediately drive the trucks and 'tracks back to Grancelles and Nece on Turn 2 for more infantry and the remaining 57s. Cover Grancelles with your Stuarts and Shermans. Watch out for long-range direct fire from the Panthers on the slopes beyond Artain. You'd like to place the Stuarts in the southern tip of the city to pick off advancing recon cars, but that "4×16" equals certain death. You'll be better off placing the light tanks out of danger along the other southern hexes. Their mission there is to counter attempts by the Pumas and company to slip around or into town. Advancing enemy vehicles east of Grancelles can be riddled by your own 75s.

Unfortunately for your Shermans, "4×16" also means near certain disruption and eventual death if you rush them into forward city hexes. Try hex DW1. Can Panthers at DFF7 spot them? Just for fun, suppose your Shermans hug the trees and cannot fire east of due-south. Your infantry at Nece mainly awaits transportation, but they also protect your howitzers. Keep some in town, but send two platoons southwest through the woods. By Turn 3, they can help spot for the guns and mortars. The 81mm barrels could also move south to gain spotting and direct lines-of-sight.

The battle continues in a move-forward/countering-move phase. Your Shermans might KO some impetuous scout cars, but a prudent panzer leader won't expose any thin-skinned units while your main battle tanks have yet to be run off. The best your M4s are likely to accomplish is a killed infantry-bearing tank. Against panzers, take sure kills over simple disruption. If the enemy is foolish enough to send his scouts forward, blast them with both tank and M8 fire. Overrun pinned stacks with your scouts next turn after the guns have pasted them. It'll be a lot easier to eliminate the Krauts as they advance than it will be once they're inside Grancelles.

Do not fire your mortars until the German trucks begin crossing the open en-route to Grancelles. Mortars are made for truck destruction.

Panzers may enter eastern Grancelles in force by Turn 3. That's when your tanks have to stick and move. Try to disrupt a stack or two. If you are successful, you might hang tough in the same hexes. If not, you'll have to draw back into the city out of sight. Keep your flanks covered by the scouts and infantry to prevent the enemy interferring with your transports as they shuttle between Grancelles and Nece. (Illustration #3 shows the American armor delaying in the streets of Grancelles while the infantry redeploys.)

By Turn 6, you may have to quit the city. Most of your troops can fall back one last time to the

Illustration #1 Panther's Meat.

Illustration #2 Ready for Action.

Caverge area, but your Shermans and an infantry or Stuart platoon may make a stand in hex AW5. Fire from there into western Grancelles will force the Germans to spend time reducing the hex. Otherwise, you might be able to withdraw the medium tanks into the woods southwest of town. Such a withdrawal preserves the threat of a later counterattack.

Caverge is your final stand. You'll need at least two infantry companies with MG platoons, plus all the AT guns. Rather than present hard targets in both hexes of the village, line the woods with the defenders to force the enemy to engage at half-strength. Any German units driving down the road for Caverge weaker than a Panther will be instant scrap. Again, an experienced German player won't advance with anything less hardy than a main battle tank. Not only that, but he may pause to shell likely defense hexes prior to advancing. Against such a veteran, you may have to settle for a single disrupted stack or just one panzer platoon ablaze.

The last third of the game becomes attritionary. Keep the road spotted for the 105s so they can pick off halftracks or careless truck stacks and scouts. The last turns should give your remaining armor chances to overrun exiting stacks of vulnerable transport. Despite mounting losses, risk giving the enemy his last four or five kills when you stand to gain a decisive victory. Tank charges and infantry close assaults should earn you the game.

So much for any end-run. What about a head-on collision?

Brakes squeal in the road outside. Boots pounding on the hill bring sharp raps on the door—which is flung open by the executive officer and the sergeant in charge of your advance OP. They report a powerful panzer column is approaching fast. Twenty Panthers in the lead. Each is 44 tons on V12 engine, thick and well-sloped armor, coaxial machineguns and punishing 75mm cannon. Eighteen squat, ugly tank destroyers and 15 Mk IVs follow behind, shaking the ground beneath their treads. With them come a reinforced battalion of tough grenadiers riding the armor or in their halftracks. Agile and aggressive recon vehicles roam ahead. The German scouts are racing toward St. Athan already, threatening Artain! The Main body is headed straight for Nece! How do you stop the classic "panzer blitz"?

Illustration #4 depicts your worst dread in "Prelude: The Saar". You are being hit hard by a panzer leader bent on victory through your destruction. Not interested at all in exiting, he's only 19 combat unit kills away from his goal. And you've got a lot of units hung out there in his path. Let's take a highly-dramaticized look at one possible course of such a game.

Any Nece defenders who lack transportation are trapped. The enemy has already driven his panzers onto slope hexes and is preparing to shell the town and your forward positions. Your tankers face a harrowing mob of targets which stay outside of half-range or manuever in and out of sight. Panzer-grenadiers cling to the Hetzers and StugIIIs, which head straight for one of your mortar sections and the ridge commanding your right. The German recon forces sweep brashly over the ridge south of Artain, or take up stations on the high ground. And exploding shells from the enemy mortars rip up the ground along the road between the woods and Nece. (They've used *Unobserved Bombardment*, an experimental rule explained in my Vol. 24, No. 2 article.)

Your tank crewmen engage two Panther units on the far slopes, but pin only one. They then frantically accelerate away down the road, past bursting mortar shells, and into town. The Stuarts, following your orders, retire to DV2. The Sherman crews' nerves have to be tight as bowstrings as they turn their guns west again in hex DT3.

Your plan for meeting a head-on attack by superior forces is something you've lost sleep over since seeing Scenario #12. The first thing to do is get the artillery in place in protected positions. The buildings of Caverge and the exit area blocking force afford both protection and good lines-of-sight if, or when, self-defense becomes necessary. So the trucks and prime movers roar off to the rear, followed by the mobile infantry in halftracks. The last trucks tow AT guns and carry a MG platoon. The men stare backward anxiously from beneath the canvas. They escape the hell erupting in the woods beyond town, but know it will be their turn soon enough.

Although your troops reactions may appear hectic and seem confused, they are all part of an audicious plan. Even as the enemy grabs the Artain area, the American scouts purposely fall back. The M20s on the ridge at DY7 race over the crest and down the road, through Nece and Grancelles. Behind them goes a troop of M8s. Their mission is to screen the city until the armor can displace. The scouts north of Nece shape up in Merden for a combat patrol. You want them to hunt out the German supporting guns. But the most immediate hazard for any of your scouts falls on the M8s in Artain. They have the hair-raising job of sitting tight on the bridge. What will come over that ridge above as they wait behind their heavy MGs?

The 81mm mortars at DW5 know exactly what's bound for the ridge—18 TDs bearing a company of German infantry. They'll be on top in minutes. All the mortarmen can do is fade into the trees. The U.S. infantry company at DV2 proceeds towards Grancelles. They certainly don't have the task the rest of the battalion has drawn. Their pals in front of Nece had some luck in that the mortar barrage wasn't very accurate, but that luck is sure to change once the panzers begin aimed fire. The GIs pull back into the woods to gather their strength and get ready for the inevitable.

The Panthers at CQ2 can spot your Stuarts taking places beyond the town, but can't engage; the light tanks are out of range. The Panthers must advance to hill DP6 to close the range, and that takes them right past the 57s at DT7. Your AT gunners hold their fire at first. They wait for sure kills on halftracks, but when the first Krauts begin dismounting on the far side of the trees, the gunners have no choice but to try for one of the Panther platoons. Their shells crash home on five of the juggernauts and immobilize them despite the range. But you know their light pieces haven't finished off the big tanks. And their fine shooting is bound to be their downfall.

German tank destroyers and MK IVs gain the ridge south of Nece as the remaining Panthers annihilate the brave AT crews. The Americans in the forest can only quietly watch the panzers churning up and over the slopes on both sides. Their fight is about to begin in earnest.

Your M8s on Artain bridge don't wait for further instructions when they see the village fill with German recon units and hear the armor on the ridge above. In seconds they fly over the ridge, past the enemy tank destroyers just gaining the top and race downhill, though Nece and on into Grancelles. Radio contact with their buddies south of the city halts them in AY6. The scouts in the woods a half-mile south didn't see the German 234/1s sneak into hex ACC9, but they investigate the noise. They subsequently request permission to engage the lone enemy troop, but you want them to stay clear and wait.

All transports are now ordered back from Caverge to Grancelles. The halftracks will help screen the city by moving into perimeter positions, while trucks move up for the infantry. The GIs have marched into the north of town from DV2 and meet the trucks there. Shermans drive in to cover the main roads into town. One platoon pulls up in AY7, while

the others stay in AV9. The Stuarts disperse to join the Shermans and the M8s in unspotted defensive positions.

Out on a limb together, the scouts to the north continue their combat patrol. One troop of M20s advances into Wiln, covered by the M8s. Once over the bridge, they contact some German trucks which haul off into the forest before the Americans can get their .50s into action. The other M20s cautiously advance over the southeast bridge and through the trees. Meeting no opposition, they head south.

Your howitzers report ready for action, and soon have more requests than they can handle. An infantry platoon in the Nece woods can spot the Panthers which just wiped out the anti-tank gunners. Another can see the MK IVs scaling the ridge on the other flank. The mortars in DX4 can also see the tanks and TDs closing in. But it's the panzer-grenadiers dismounting on the east edge of the woods that really frost the cake. The howitzers send out a barrage onto the Panthers atop the hill at DP6 and hope to get adjustments from the GIs in the trees onto the German infantry.

The panzer leader facing your combat scout patrols has become concerned for his mortar teams. He directs the AA guns to prepare to fire from along the forest road at CQ5 and on the slopes at CU3 to protect his fire group. More to his satisfaction surely is his iron grip on your infantry before Nece. His tanks pump salvoes of high explosives into the trees to soften up the target. Incredibly, the footsloggers escape serious injury. Maybe the Krauts don't have the exact range, or don't see your foxholes since you've held your fire.

South of Grancelles, your scouts report that another group of 234/1s and five small Lynxes have crept up to ADD9. You must order your men back into the city. You can't afford to risk them when halftracks alone man half the city perimeter. While the GIs in the town have mounted trucks and driven to AW6, the German infantry has also been moving.

From the hexes they dismount in, the 'grenadiers push into the woods in front of Nece. Two platoons and their halftracks on the road at DT7 make first contact. The GIs fight them back while a companion company moves a little south to DV6. Things are sure happening fast. Two M20s occupy hilltops CS7/T8. The next time the German mortars fire, they'll be spotted for a priority artillery strike. The M8s in Wiln guard the patrol's escape route. Your tanks in Grancelles stand fast, ready to counter any German penetration. Two full companies of panzergrenadiers hurl grenades and fire burp guns from the hip as they rush your boys at DV6, pinning them to their holes.

Panthers and MK IVs have shifted to gain better lines of fire. Three Panthers on DZ5 not only cover the woods battle, but support the recon elements south of Grancelles. With all the panzers in position, the panzer leader is sure to loose a hail of steel with the next 'grenadier attack.

But even while the enemy is about to crush your GIs, he's forced to deal with a thorn in his behind. Your scout patrol has his fire support in immanent danger just when he was counting on them to help shell the Nece defenders. The enemy decides to load up his valuable units, but this activity enables your patrol to spot them. Despite fire from the AA guns at CUU3, the scouts radio the map coodinates to both the 105s and your own mortars. For good measure, the M8s drive to CQ6 where they contact the German 20mm rearguard.

But your mortars dare not fire. Those at DV2 have to move away from the nearby panzers. Those at DV5/4 stay put, stay concealed, and also stay alive. Only the howitzers can fire, but they are busy trying to support the trapped infantry. The patrol's call must wait a few moments.

Holding their positions in Grancelles, the embattled American troops hear the 105 shells

scuttling through the air overhead. The "outgoing mail" falls squarely on some German infantry in DT6 to pin a platoon each of men and halftracks. But it's little help. The panzers slam round after round into the hapless GIs. Your men hug the earth and again escape the worst of the shelling, but the enemy panzergrenadiers now strike in force. The company in DV6 is pinned, but the in DU6 is wiped out by a vicious engineer-led assault by two companies and their halftracks. In addition, a enemy platoon dismounts in hex DV2 intent on finding your retreating mortarmen.

Finally answering the scouts' deperate cries for a priority fire mission, the howitzers obliterate the AA guns and their trucks in hex CQ5; but the German mortars get away. The German drivers floor their accelerators to careen toward Nece before your guns can turn on them.

The cost for holding up the Germans for nearly six turns has been heavy. The 114th Infantry is now down to one-third of its strength. Between the concentrated armor fire and the two-to-one odds enjoyed by the German troopers, your men have been overwhelmed. With them went the mortar section at DV5. The U.S. mortar crews at DW1 are pinned. (Illustration #5 shows the end of American resistence in Nece.) The panzer leader is over halfway to his decisive victory, but he must move forward *now* to deliver the *coup de grace*. His panzers roll ahead even as the last grenades are exploding in the woods and the last GIs are rounded up as prisoners.

With the destruction of the Kraut AA guns at CQ5, your scouts now head for the west—their mission accomplished. They must race back through Wiln and Merden on their circuitous route to Caverge and an appointment with the enemy's main body.

Having lost contact with the defenders at Nece forces you to shift the Grancelles units. To better meet the onrushing enemy, the Shermans in AY7 move into AW7 to back up those in AV9. The crewmen jockey into their new positions only to hear over their own idling engines the sounds of the advancing Panthers. Your opponent is moving swiftly to concentrate his troops for the assault on Grancelles. The 'grenadiers remount their halftracks as they can to catch up with the panzers. The Hetzers and StugIIIs reload their infantry riders too. After a brief pause to destroy the American mortars at DW1, the MK IVs also plunge ahead. Two Panther platoons descend the slope to roll through Artain and now threaten the city from AAA9. To the north, five more big tanks rumble into AV10, with two panzergrenadier platoons in support. The MK IVs and five more Panthers grid into AU8. The enemy grips north Grancelles in his iron fist.

Your defenders leap into action. The Shermans and a troop of Stuarts immobilize the Krauts in AU8. Your available infantry company jumps into close assault on the pinned armor, but scores no kills. The Shermans and Stuarts fall back into the south side of town (to AW7) and avoid retaliatory fire. The rest of your light tanks concentrate in AY6. Their job is to hold off the Germans who will soon be attacking the south side.

Lacking visible targets, the panzers must advance into the city. Panthers and tank destroyers are joined by the engineers and the panzergrenadiers to press in from north and east. Redoubled German might is sure to hammer the defense. Your tankers in AW7 again spit steel. Again their fire shocks the enemy. A stack of Hetzers, Panthers and infantry in AV9 is pinned by two troops of Shermans. The rest of your tankers pour fire into AU8, but this time cause little damage. Again the tankers pull back; too many panzers are left unpinned to let your men hold. The Shermans and Stuarts move back into AW6 while the other Stuarts and an M8 withdraw into AY6. Meanwhile the entire western edge of town is held

only by scouts and halftracks. You've smart enough to realize that any further stand by the infantry would be more than foolish. The Kraut infantry's bullets *ping* and *splang* off the sides of trucks and halftracks as the GIs pile aboard and make haste for Caverge.

Back at the exit area, your artillery stood idle (for Turns 7 and 8) due to a lack of spotted targets that remained in place long enough to hit them. An infantry platoon slipped into AQ4 to help spot Germans moving into the city, but the guns couldn't catch the 'grenadiers before they gained the cover of the buildings. On the other side of the city, the lone surviving mortar platoon also moved into spotting positions, but had similar luck in calling in fire missions.

Reports from your armor retreating into western Grancelles reach you just as the scouts return to Caverge from their combat patrol. With the deteriorating situation in the city, you hastily cram the nearby woods with the arriving scouts and the withdrawing infantry. More troops fill up the northern half of Caverge. It won't be long now.

With the start of Turn 9, the panzer leader is desperately throwing his troops into the battle. He must close up for the KO punch. He sends some Panthers in a flanking move around the city's south side. The big tanks churn by your light Staurts and scouts in their emergency positions. The Germans stop in sight of Caverge at AW4.

The panzer leader, expecting to draw fire and not receiving any, calls forward his recon elements. But when the lead 234/1 troop reaches AX4, a troop of M8s streaks toward it firing like mad. Your cavalrymen overrun their victims at AW3 and destroy them. They halt in AW2. The rest of the 234/1s make it to AV3 and prepare to engage the wild Yanks. Into ABB4 rush the Pumas and the 234/4s. Your Stuarts open up, disrupting the heavy scout cars.

Panzergrenadiers move to pounce on the Stuarts from AY7. Your tankers spray the streets with MG fire and retreat. Other Germans wipe out some trucks on the bridge at AV7 before they run across. (Illustration #6 shows the boiling cauldron just

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EXPERIMENTAL RULES

The experimental rules mentioned in this footnote may be used to add extra dimension to many of the situations in the *PL/PB* system. We'd be interested in hearing your views on these, and how they may affect your play.

Rule D: Woods hex Concealment Potential. The table below sets forth the number of units, vehicular and non-vehicular, which may set up unspotted in hexes containing partial wooded cover. Cover is defined by the fraction of the hex which is cover by printed tree symbols. Mounted non-vehicular units count as vehicular.

Wooded Cover	Vehicular	Non-Vehicular
25%	0	1
33%	1	2
50%	2	3
66%	3	4
75%	4	4

Use of this rule simulates attacking forces having moved into their jump-off positions under cover of darkness or adverse weather.

Rule E: Designated Targets. It was common practice for defenders who were in an area for more than a day to coordinate with available indirect fire support for pre-arranged fire missions. Defenders would register test barrages in areas through which enemy attackers would likely be advancing and arrange short code numbers for each target. Supporting guns and mortars would then be able to react quickly for such missions. Therefore, any player who sets up defensively, but not in a "hasty defense", may record any agreeable number of pre-designated hexes for on-call fire missions by indirect weapons. Designated targets must remain spotted during the mission, but such barrages may be called in as Opportunity Fire. (This is an exception to the rule prohibiting indirect fire as Opportunity Fire.)

Rule F: Prepared Positions. The first thing an infantryman did on reaching any new position, unless in a hasty retreat, was begin to dig in. Veterans knew getting a few inches below ground level often meant the difference between "the quick and the dead". Given that the game designers factored in some consideration for this basic survival skill, it still seems unfair that an infantry unit in a wooded or town hex gets no benefit unless it's behind a heavy hexside. Using Rule D above as a guide, figure any non-vehicular unit which begins the game in defen-

sive positions in wooded or town hexes gains the defensive bonus regardless of the presence of heavy hexsides. Units must have been in their position for at least 24 hours in fair weather, or 48 hours in a winter situation. Troops who spent more than a day in one place would have had time to prepare overhead cover for their foxholes in terrain where materials were readily available.

Rule G: Turreted AFVs modified for "Peek & Shoot". If a turreted AFV can engage enemy targets and then move half of its movement allowance, why not take full advantage of its mobility? Modify the rule to enable any unit capable to move one hex out from behind cover, engage a target at half strength (any short-range doubling does apply), then move the one hex back into cover. Players may wish to use this rule only for veteran or elite units.

Rule H: Limited Intelligence of Enemy Dispositions. If enemy units faced each other across no-man's land for some time (such as when GIs occupied the Ardennes across from the West Wall for several months), the units would likely have a fairly good knowledge of each other's positions and front-line strengths. In a situation where a spearheading force met second-line resistence, or where the opponents had made only recent contact, the units would be almost totally ignorant of the enemy's positions and strength. Therefore, in situations where it seems that the opponents may have had limited time for in-depth patrols, neither player can know the enemy's dispositions beyond four hexrows inside the forward positions. This is a limited version of the hoary old "double-blind" system. Players may screen their rear areas with sheets of paper, or use a second set of mapboards and counters. The advantages to be gained by such play become clear when you spring ambushes which knock your opponent on his duff. Surprise is the spice of wargaming life, right?

A final historical note on the rules. According to Dr. Hugh M. Cole, author of *The Lorraine Campaign*, the Panzer Lehr Division had suffered heavy losses in the battles in France. Therefore, many of the soldiers in its ranks were green replacements. The inexperience of the new men showed in the division's road march into the Saar region. Inept drivers stalled the columns repeatedly, and so delayed Panzer Lehr's arrival. If the players of Situation –12 wish to simulate this historic aspect of the fight, try suspending the Turreted AFV rule for all German armor.
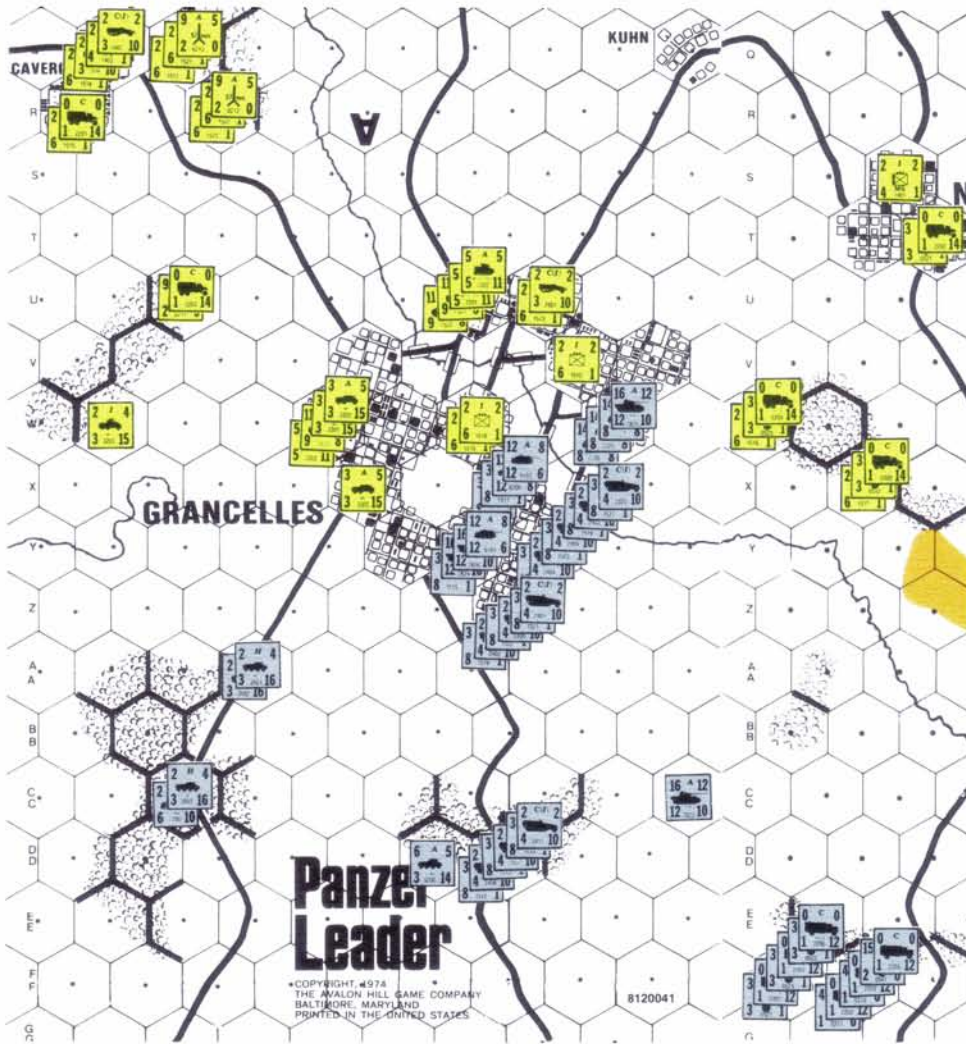
Illustration #3 Southern End-Run and U.S. Delay in Grancelles.

Illustration #4 Head-On Collision.

Illustration #5 Nece is Lost.

before your armor pulls out.) The Shermans loose everything they've got in one last volley into the panzers in hex AW7, but fail to deter the enemy. Their fire does hold open the escape route for long enough. The Stuarts and M8s from AY6 zigzag through the narrow streets en route for Caverge. When the light tanks break into the open, your 105s rip into the earth around the menacing Panthers just heaving into sight at AW4. 57mm shells from AT guns and 37mms from scout cars in AR4 join in. The German armor sheds every shell as if you were throwing spitballs. The Panthers proceed to atomize the first troop of Stuarts before they can reach the village. Your M8s make it to safety, but the second troop of Stuarts is held up by the exploding wreckage of their friends.

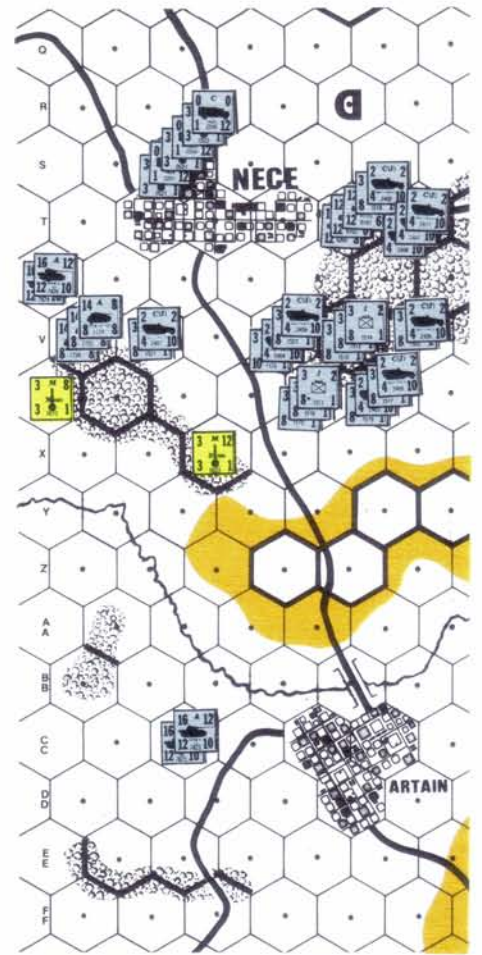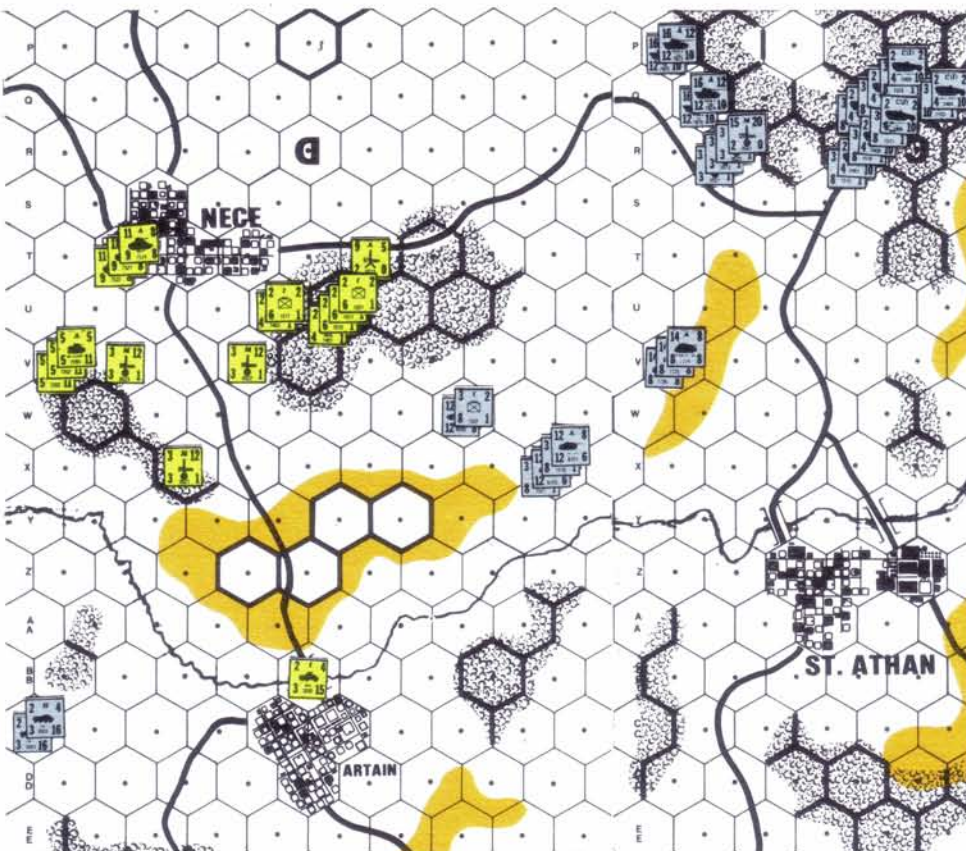Now, the last remaining American tanks must evacuate Grancelles. They frantically motor past the Panthers which just blew apart the Stuarts. Some of the 105 shells fall short of their target and threaten the Shermans, but your tanks make it to AU3. The last GIs out of town are a rearguard of halftracks and M20 scouts. They gain Caverge seconds before the Germans occupy western Grancelles in the last turn.

So the panzer leader gains only an absurd climax. He possesses the city, but none of his units (aside from the panzers) dare try to advance further. Thanks to the stubborn American delay in the city—and particularly in its western half—your opponent's only choice is to run the gauntlet of waiting guns, or concede the game. In the face of your concentrated and carefully husbanded guns, he's sure to lose enough of his thin-skinned units to hand the Yanks a decisive victory—while he may or may not achieve a marginal win himself. All you'd have to do is hold fire until his trucks and halftracks come into your sights at half-range.
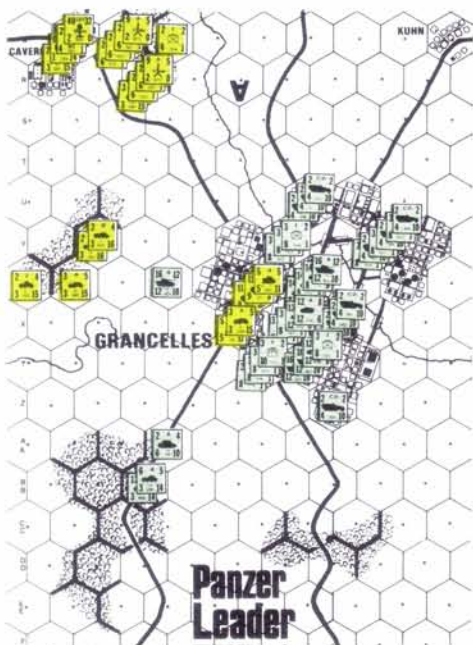
Illustration #6 Boiling Cauldron.

The American "stick-and-move" tactics can rob the enemy of the one thing he is always short of—time. You are outgunned, outmanned, and yet can pull off a decisive victory in Situation #12. Tenacity enables the American player to exchange places with the panzer leader, and put him between "the rock and the hard place".

As *PANZER LEADER* enthusiasts know, any set of tactics or any one strategy is simply a rung on an evolutionary ladder. It's my hope that this set of ideas merely allows gamers to play on my most recent landing step. Whether that's a rung up, down or sideways for you—happy gaming! ☆

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Prelude . . . *Cont'd from Page 45*

first, suppose that the 9th SS Recon had left elements behind to secure the Arnhem bridge when it crossed heading south to Nijmegen; second, what might have transpired if the 2nd Battalion C Co had avoided ambush at the station and arrived intact at the bridge? I suggest that both the situations be played at the same time by providing the German with the ability of setting up 9th SS Recon units (three 4-6-6, two 3-3-10, four 3-2-8 and the 2-7-6) in any area containing a red circle with a white numeral. Then add C Co (nine 4-7-5s and the 2-8-5) to the set-up list for the British and have it commence play in Zone D on Turn A. An engagement will develop immediately which will force the British to risk all to reach the VP areas and hold them. Use German VP determination on Turn 1 as per the rules of "The Crossing". This is a simulation of what might easily have transpired, and is fascinating and fun to play since it alters the battle's complexion.

In closing let me say I have chosen these points of discussion in hopes of constructively criticizing some portions of the game which I feel lacked a degree of authenticity. The revisions may appear to be serious, and admittedly they will alter some aspects of play. Nevertheless, I have attempted to keep my suggestions within the basic framework of the game's mechanics—which are the heart of this unusually well-designed simulation. I am very conscious of the designer's desire to keep *STORM OVER ARNHEM* short, playable and realistic; I believe my revisions support that end. ☆

BACK ISSUES

Only the following back issues of The *GENERAL* remain in stock; price is $4.00 per issue (plus the usual shipping and handling charges). Due to the low quantities of some back issues, if ordering, please specify alternative selections. Below is a listing of each in-stock back issue by subject matter; game abbreviations are italicized and standard (a partial listing may be found on the "Opponent's Wanted" form on the insert of this issue). Type of article is indicated by the following abbreviations: H—Historical, DN—Designer's Notes, V—Variant, SR—Series Replay, S—Strategy, Q—Questions, P—PBM (postal), Sc—Scenarios, A—Analytical. The featured game for each issue is always the first one listed. Those printed in red indicate one-color reprints of previously out-of-stock issues.

14-3: *AIW*—H, DN, S, Q; *TRC*—S; *3R*—S; *STAL*—SR; *WAS*—V; *PB*—Sc
14-5: *SL*—H, A, DN, Q; *WS&IM*—A; *TRC*—S; *MD*—S; *SST*—S; *3R*—S
15-2: *PL*—V, Sc; *STAL*—V; *3R*—V; *DD*—DN; *RB*—S; *VITP*—S
16-1: *AZ*—Sc, S, DN; *3R*—S; *NP*—S; *PB*—SR; *1776*—S; *DIP*—S
16-6: *DUNE*—A; *DIP*—V; *OS*—V; *AZ*—DN, Sc, SR; *PB*—A, PBM
17-4: *FE*—S, P, DN, V; *MD*—V, Q; *COI*—SR; *VITP*—S; *1776*—Sc; *WO*—A; *SST*—V; *NAP*—S
17-5: *CM*—S, V, Q; *RW*—V; *SL*—V; *STAL*—V; *PL*—S; *3R*—S, SR; *CAE*—V; *KM*—S; *MR*—S
17-6: *STAL*—S; *WS&IM*—V, Sc; *WAS*—V; *3R*—SR; *SL*—S; *TLD*—Q; *CL*—S; *VITP*—S; *TRC*—S
18-1: *FITW*—A, Q; *BIS*—S; *SL*—S; *DUNE*—V; *DIP*—S; *AK*—A; *PB*—SR; *AL*—S; *W&P*—S
18-2: *AF*—A, Sc, Q; *AK*—V; *3R*—DN; *TB*—V; *SL*—S, Sc; *AIW*—V; *VITP*—S; *DIP*—S; *DD*—S
18-3: *GOA*—S, DN, V, Q; *AOC*—V, Sc; *AK*—S; *VITP*—V; *SL*—S, Sc; *WS&IM*—SR, P; *DIP*—S
18-5: *3R*—S, A, V, DN, Q; *SL*—S, A, Sc, *TRC*—V; *TB*—V; *RW*—V; *CL*—A; *DUNE*—V
18-6: *FT*—A, Sc, V, DN; *VITP*—V, Q; *MD*—S, Q; *SOTN*—A, Q; *SUB*—Sc; *BL*—V
19-1: *SOA*—A, V, DN, SR, Q; *TLD*—A, Q; *3R*—S, Q; *DWTK*—DN; *TB*—A
19-2: *BB*—H, Sc, S, DN; *TLD*—A, Q; *SL*—V; *3R*—S; *SOA*—SR
19-3: *GSL*—A, Sc, V, SR, Q; *DIP*—A; *RW*—Sc; *GE*—V; *1776*—Sc; *LRT*—V, Q; *SL*—A
19-4: *CIV*—A, V, DN; *CM*—V; *DIP*—A; *GL*—V; *AL*—V; *TR*—Sc; *WO*—Sc; *SLA*; *3R*—S, Q
19-5: *SON*—A, S, H, Q; *W&P*—S, Q; *DIP*—A; *WAT*—V; *WS&IM*—Sc; *SL*—A
19-6: *VITP*—PBM, SR; *3R*—V, Q; *DIP*—A; *FT*—V; *BIS*—V; *NW*—A; *SL*—A, Sc; *SUB*—V, Sc
20-1: *GI*—S, A, DN, V, Q; *VITP*—SR
20-2: *TT*—A, DN, S, Q; *MR*—V; *LRH*—A; *SL*—Sc; *W&P*—V; *GOA*—S, Q; *DIP*—A; *PL*—V
20-3: *FRED*—S, V, Sc, Q; *PB*—A; *1776*—Sc; *DWTK*—S, V, Q; *DIP*—A; *CON*—V, S
20-5: *BR*—SR, S, H, Q; *LRT*—S; *DIP*—A; *GSL*—Sc; *GE*—A; *WS&IM*—Sc; *SON*—Q
20-6: *B-17*—A, V, SR, Q; *AF*—V; *LW*—S; *DL*—S; *FE*—S; *DIP*—A; *MD*—S; *BR*—SR; *GOA*—Sc; *SL*—A; *PL*—Q
21-1: *UF*—S, A, SR, DN, Q; *SOA*—S; *GI*—H, S; *TRC*—S; *DD*—S
21-2: *NAB*—S, DN; *W&P*—S, A, Q; *NAP*—S, Q; *DIP*—A; *FR*—S; *FE*—S; *3R*—S; *BFI*—S; *1776*—S; *SL*—A
21-3: *BB*—S, SR, Q; *3R*—S; *SL*—A, H; *SOTN*—V; *DIP*—A; *FRED*—S; *FE*—S, Q; *SST*—S; *TLD*—S; *PL*—Sc; *1776*—Q; *SOA*—Q
21-4: *PGG*—S, SR; *PB*—A; *3R*—S; *TRC*—S, V, Q; *DIP*—A; *STAL*—V, S; *SL*—Sc; *PK*—Q
21-5: *HW*—S, V, A; *MR*—S, Q; *OR*—A; *DIP*—A; *3R*—A, RB*—S; *CON*—V; *CIV*—S; *SL*—A
21-6: *FP*—H, V, SR; *AIW*—S, Sc; *BL*—V; *TAC*—V, Q; *SL*—A; *PK*—Q
22-1: *PAA*—A, S, Q; *TB*—A, V; *DWTK*—DN; *TR*—V; *GSL*—PBM; *DIP*—A; *AOC*—S; *WAS*—S, Q; *AK*—V; *CIV*—S; *3R*—S, Q
22-2: *BANZ*—A, SR, Q; *FT*—A, S; *SUB*—Sc; *VITP*—S, Q; *AK*—Q
22-3: *PB*—SR; *PL*—Sc, V, Q; *SOA*—S; *3R*—V; *DIP*—A; *CIV*—A; *UF*—Sc, Q; *AIW*—S; *GOA*—A, Q; *TLD*—A
22-4: *RF*—A, V, S; *TRC*—V; *PK*—S, Q; *DIP*—A; *3R*—V; *SUB*—V; *PPG*—S
22-5: *DEV*—A, S, Q; *GSL*—Sc; *BR*—S; *DIP*—PBM, A; *SC*—V; *FITG*—A; *ASL*—Sc, Q
22-6: *ASL*—A, Sc, DN, Q; *FP*—Sc; *FE*—S, Q; *WAS*—A; *DIP*—A; *SL*—S; *TLD*—S
23-1: *FL*—A, V; *DL*—V; *B-17*—V, DN; *HW*—S, Q; *VITP*—V; *3R*—S; *TT*—V; *LW*—V; *SST*—V; *RW*—V
23-2: *ASL*—A, S, Sc, Q; *BV*—SR; *UF*—S; *PL*—A
23-3: *SUB*—V, Sc; *ASL*—S, Sc; *BV*—SR; *HW*—V; *BL*—V, Q; *BB*—A
23-4: *EIA*—S, DN; *W&P*—V, S; *WS&IM*—Sc; *SC*—V; *NAP*—S; *YS*—S; *3R*—S, Q
23-5: *KOTA*—DN, Sc, Q; *WAT*—V; *B-17*—V, Q; *3R*—S; *RW*—V; *ASL*—S, Sc; *VITP*—S
23-6: *1830*—DN, S, V, Q; *FP*—Sc; *RB*—S; *DEV*—PBM; *CIV*—S; *MR*—S
24-1: *ASL*—V, S, Sc, Q; *SOF*—SR; *TRC*—S; *FP*—Sc; *RF*—S, DN; *PGG*—S
24-2: *ASL*—A, S, Sc, Q; *SOF*—SR; *PL*—S; *3R*—S; *DD*—S; *FE*—S
24-3: *DIP*—S, A, H; *HW*—V, S; *EIA*—S; *DE*—S; *TV*—Q; *KOTA*—Q
24-4: *RSN*—H, D, A, SR, V, Q; *ASL*—V, S, Sc; *FE*—S; *3R*—S
24-5: *BRIT*—A, DN, S; *CAE*—S; *GL*—V; *CIV*—S; *SOJ*—DN; *KM*—V, S; *MR*—S, Q
24-6: *CASS*—H, S, SR, Q; *B-17*—V; *ASL*—S, Sc, Q; *AZ*—S, Q; *PGG*—S; *3R*—S, Q
25-1: 25th Anniversary Issue; *KREM*—S, Q; *DINO*—S; *MOV*—DN; *ASL*—DN, Q
25-2: *TAC AIR*—H, S, SR; *FP*—Sc; *PLA*—S; *MBT*—DN; *TRC*—PBM; *ASL*—S, Sc, Q; *AIW*—S; AREA Revision

Dear Mr. Martin,

I've been pouring over the 25th anniversary issue of The *GENERAL* for the past couple of days, and reminiscing and philosophizing. Thanks for a terrific issue!

Personally, I've spent most of my twenty wargaming years on the sidelines, keeping a low profile, and waiting for the moment when the "perfect wargame" would appear. During much of this time, I've relied on The *GENERAL* to keep me in touch with the latest trends. It has inspired me to buy and try a number of games I would otherwise not have considered; and it has given me enough information about certain games that I was able to consciously avoid buying them. And, as some of the writers in the anniversary issue aptly expressed, The *GENERAL* has also made me feel a part of the wargaming community all these years; that's been important.

If you think about it, you can tell Don Greenwood for me that I was *glad* to see dinosaurs in my wargaming magazine (though I have no intention of buying the game). I was even glad to see the "Sports Special" column, though I didn't read it and probably never will, as my love for sports is roughly equivalent to my love of snails in the garden. And a feature article on *KREMLIN*—why not? War is exciting, and I've been a military history buff for as long as I can remember. But it's only one phase of human adventure. And I think it is wonderful that Avalon Hill and The *GENERAL* have broadened the horizons of the gaming community, whether we all like it or not.

Likewise deserving of praise is the collection of articles by long-time notables in the hobby; they reminded me of our roots and confirmed for me a sense of pride and wonder in what has become a big part of my life. At the same time I congratulate you on the anniversary issue, and The *GENERAL* in general, I must also say that I heartily agree with the sentiment expressed by Mr. Rivas in "The Long Goodbye". It's all too easy, while rolling dice and sipping beer over a game which is "just a game", to forget that we're not in this thing just to pass the time. For any of us (even Don Greenwood, I suspect) who has been in wargaming and stayed in it, wargaming has a special place in our hearts. Like it or not, and whether we'll admit it or not, it has become a part of us and it would hurt us deeply to be separated from it. In other words, it's much more than "just a game".

What's more, our game preferences are based, more often than not, on experiences such as Mr. Rivas' childhood romp at the air scrapyard. In my case, it was my father's war stories that first got me interested in military things. He was a paratrooper in the 101st and, though he died in 1971, I still vividly recall some of his stories; and the memories are clearer still when I sit down to a *PARATROOPER* scenario or a game of *BULGE*. But as Mr. Rivas points out, such memories and pleasant imaginings are easily shattered when the attention is called to odds ratios and tables of probability. I've often shaken my head in disappointment and said, "It's too bad it's a *game*." Being a game, it is competitive; and being competitive, the player is compelled to shrug off his pleasant revery and concentrate on the strategy and tactics needed to win. I don't like having to shrug off my wonderful fantasies—not even in exchange for a challenging contest and enjoyable social interaction. But alas, these are games after all.

Which brings me to Seth Owen and his "Historian's Guide". I was thrilled to see this article, as his first article was my favorite ever; I've referred back to it many times. But I disagree with Jon Freeman's categorization of wargamers. These types of gamers, in my experience, simply do not exist. The "Historian" tends to read books more than play games; the "Military Enthusiast" is usually another form of Historian who simply specializes more; etc. In my experience, there are only three types of gamers: the Competitor, the Socializer, and the Dreamer.

The Competitor, similar to Freeman's "Assassin", plays to win. He may not necessarily be out for blood; he may be a good fellow with an admirable sense of sportsmanship and fair play. But it's his nature to cut through all the "frills" and boil a game down to its mathematical essence, then do whatever he can to *win*.

The Socializer, akin to Freeman's "Gamer", is in it for the social interaction. It's often hard to break the ice around other people—sometimes even those you know well. But a game can be a wonderful "mask" which makes socializing fun and easy. The Socializer cares little about winning; he hasn't the patience or inclination to study a game that closely. He just likes playing the games *with* people.

The Dreamer, who does not exactly correspond to any of Freeman's types, is into wargaming for all the vicarious adventure. He is the antithesis of the Competitor, in that he (the Dreamer) lives for the "frills" and prefers to remain blissfully ignorant of the "winning strategy". For the Dreamer, a wargame is a vivid experience in imagination. He constantly wonders, "What would this situation look like in real life?"

These are the three types of gamers I've known in my life. Mostly, I've been a Dreamer. And I've been fortunate to find a few others of my ilk. In high school, my wargaming partner threatened to quit once when I became a bit too competitive. I had read a "perfect plan" article in The *GENERAL* and decided to give it a try. My partner gave me a hard look and accusingly said, "You're trying to win! If you don't stop it, the game's over." Some people would find that absurd; but I understood my friend's feelings and apologized. And from then on, all our games were simply experiments in imagination.

Since then, I've grown more moderate in my attitude. I'm still a Dreamer when I play solitaire; but I can play the role of Socializer or even Competitor when necessary (though my dreaminess keeps me from winning, more often than not).

It must seem that I've digressed quite a bit here. My point—the one I've been leading up to—is that I'd like to see The *GENERAL* cater to all three of the types of wargamers I described above. In the recent past, the magazine has been weighted heavily in favor of the Competitors; the Socializers and Dreamers have been unfairly left out. I don't mind "perfect plan" articles, or probability analyses, or series replays. But come on—there's a whole lot more to wargaming than winning the games! The several articles by the wargaming notables in the anniversary issue are all good examples of what I'd like to see in every issue—wargamers talking about their wargaming experiences.

In other words, there's a place for *descriptive* articles as well as analytical ones. I'd be more than happy if the feature article simply described *KREMLIN* to me and told me something about who designed it, how much fun it is to play, and what some of the possibilities are. You don't have to dissect the game and tell me how to maximize my chances of winning. And you certainly don't have to give me a "Series Replay". I'd be more interested in reading about the historical event that a wargame is based on; but nothing could be more boring to me than to read about how these two players happened to distort the historical outcome in this particular case, and one of them happened to win the game! Ho hum!!

HEROES went to the opposite extreme—it was dominated by long-winded descriptions of a fantasy land, and lacked substance. But maybe, once in a while, The *GENERAL* could feature a description of a gaming session on a new game *without* the mathematical or strategic analysis. Or maybe there could be cartoons, or another Alan Moon-type feature—something to break up the rigidity of the Competitors.

Anyway, I really wrote this letter just to say thanks. You guys are doing a terrific job, and The *GENERAL* is better than ever. Best wishes for the next 25 years!

Patrick Carroll
New Hope, Minnesota

★★★★★

Dear Mr. Martin,

Being a loyal Avalon Hill fan and a four-and-a-half year subscriber to The *GENERAL* makes me feel somewhat guilty that my first letter to the editor is critical. So, let me begin by saying that I enjoy The *GENERAL* tremendously, and the 25th anniversary issue was the best to date. I also miss her back issues all the time and agree with Mr. Degi that it is time for an updated *Index*. Thanks for all the quality information and fun that comes with each copy of The *GENERAL*.

My rebuke concerns the published solution to the *THUNDER AT CASSINO* contest (#142). In Vol. 24, No. 6, the objectives are clearly stated: "Your task as the Allied player is to devise a combination of impulses that will give the *best* chance of wrestling sufficient control from the German to gain a victory—using only the mapboard space illustrated here." Yet in the solution published in Vol. 25, No. 1, it states that, "Although there are many ways to approach the problem, any that drops the Allied guarantee of at least a draw is not worthy of consideration." If the objective in the contest is to "gain a victory", why should a contestant even consider a draw if the probability of victory is greater with a different combination of impulses? I agree that in a regular game a guranteed draw would be tempting, depending on the Allies' chances for an extended victory. But a 71% chance of outright victory would be tempting as well, as was the case with my solution. In any case, going for a guaranteed draw was not the way to approach the problem in light of the way the contest was stated.

In case you discarded my solution as "not worthy of consideration", here it is again: The object is to get two VPs without losing any. The probability of seizing control of both areas 19 and 31 is small, so area 29 is the key. Garrisoned by a lone machinegun unit, area 29 can be easily taken in Close Combat if area 27 can be cleared by the artillery. First, move the B/MG/6 Raj machinegun unit from area 28 to area 29 to prevent retreat. Second, move the slower A/1/6 Raj infantry unit from area 20 to area 26 to prevent retreat into that Allied-controlled VP area. Next comes the crucial shelling of area 27, with an 84% chance of getting the four or more casualty points required to clear the area (retreats being as good as kills now that retreats are controlled). If successful, an Allied victory is guaranteed. Since the C/19 Sherman and the A/1/9 Gurkha units can now freely move into area 29, the German 8/II/1 platoon will be convinced to surrender Baron's Place and the Coliseum.

I do admit to an error in some additional information I included with my solution. I stated that the probability of Allied victory falls to 66% if the German calls a night turn before the artillery strike. The Allied victory is actually guaranteed if the Germans call down night, because the Sherman and Gurkha units can then move around area 27 into area 29 without the artillery strike being necessary. If the German uses his Tactical Advantage to force a re-roll of a successful artillery strike, the Allies can call night on their next impulse to guarantee victory. However, if the re-roll causes one casualty point or less, a sly German could voluntarily retreat one unit from area 27 to area 28 to prevent allied reinforcement of area 29. But even if the German forces a re-roll of the artillery strike and night was called in Turn 8 forcing the sun to shine all of Turn 9 (a situation not stated in the contest)—the Allies still have a 71% chance of victory with my solution. To get really carried away with the numbers, my solution is 25% better than the published 57% chance solution, given the objectives of the problem as stated.

Also, the second paragraph of the solution speaks of using the Observer unit to smoke area 27. The fourth sentence then says, "By smoking area 27, the Gurkha units can now move around the MG unit in area 27 through areas 26 and 28, and into 29 . . . " Even if the first "29" in this sentence should have read 27, I still count seven MF to get into 29, more than the Gurkhas have. This fact would reduce the chances of the published solution, but the odds could be restored to the original numbers by moving the Gurkha and Rajputana units into area 19 while moving the Sherman into area 29. Firing the Sherman unit at area 31 in hopes of getting the German to give up the Tactical Advantage seems overly optimistic anyway.

Thanks you for listening to my gripes, and please let me know if I have overlooked something in my analysis. Even if you didn't send my rightful prize, I thank you for for the added enjoyment this disagreement has generated. *THUNDER AT CASSINO* is one of my favorite games and I had a great time with the contest.

Bob Rademaker
The Colony, Texas

★★★★★

Dear Rex,

After 24 years in the hobby (16 of them as a *GENERAL* subscriber), I'm writing my first letter to the editor. I don't know how the 25th Anniversary issue will be received by the reader-

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ship, but I wanted to let you know I enjoyed it immensely. I enjoyed the reminiscing of the hobby's beginnings and the chance to sample the views of the hobby's luminaries.

Of particular interest were the articles by Don Greenwood, Paul Rivas, Terry Baney and Seth Owen. Like all wargamers I have a little of all of the seven personality types in me, though I am mostly the historical type (though I don't especially like the term "simulation"). As a "Historian" I could emphasize with Rivas and I disagreed with Greenwood. So why have I been a loyal subscriber to The *GENERAL* for 16 years? Because The *GENERAL* has been a link to the wargaming "fraternity". Why have I been loyal to TAHGC games? Because many of the games which were sold as "simulations" by other companies turned out to be something else. In fact, many were not even what every Avalon Hill game has been: namely a good quality piece of workmanship and a good game. Seth Owen confirmed what I had intuitively known: that the majority of TAHGC games are rated "C" or better by a historian's yardstick. Just about every historical wargamer should be able to take an Avalon Hill game and make as much of a simulation out of it as would suit his taste. When they are done, they have a simulation and a good, high-quality game. I've done this with many AH games and it usually requires very few (and minor) changes from the original game.

But even as I disagreed with Don Greenwood, his remarks struck a cord in me and after some thought I realized that when it comes to wargaming I have a split personality. When I play games face-to-face I am a "Gamer"; a playable game and the social interaction are most important. When I am being the "Historian" I prefer to play solitaire and immerse myself in the history of the subject and learn from the game. And this is probably the main reason I prefer TAHGC games. They can be played on two levels. They can be played as games with a live opponent or as simulations with my modifications. Most games by competitors that were born as simulations cannot be coverted into *games*.

I am greatly encouraged by your reply to Mr. Rivas. It seems to indicate that The *GENERAL* will be using its expanded format to create a balance between the "Gamers" and the "Historians". And this is exactly what I want to see. I like to see game variants because these have the tendency to illuustrate the games-to-simulations conversion I was talking about.

One last point; I think all of us wargamers should take Terry Baney's article to heart and do a little bit for the hobby in return for what we have gotten from it.

John Kennison
New York, New York

★★★★★

Mr. Martin,

Congratulations on the *GENERAL*'s 25th, and a "well done" to you for an outstanding job on the anniversary issue. I very much liked the new extended format and the added features; my personal favorites were "Coming Attractions" and the "Computer Corner". I just have a few words about several comments made in the magazine.

Firstly, I disagree with Mr. Owen's, in his "Historian's Guide to Avalon Hill Wargames", rating of *UP FRONT*. With the information provided in the game on squad organization and the inter-action of the squads against each other in play, I feel it is an excellent game historically at this level. As far as his comment on the terrain changing around you, this just isn't so. Just because you can't move your men back into a building, because of limited hand capacity, doesn't mean the building disappeared. It's still there, but for some reason is beyond your ability to get to at the moment. Should the opportunity arise and you have a clear path (you draw another building card at a more opportune time), you can get your men into it.

Secondly, I agree with Mr. Spence in the "Letters to the Editor"; it is too bad that people condemn the hobby with preconceived notions of what the sport is all about without really checking into it. But I feel you made the same harsh judgement with your comment concerning Halloween. If you study the true meanings of all our Halloween traditions, maybe you wouldn't be so quick to condemn those of us who want nothing at all to do with it.

Mike Phelps
Mifflinburg, Pennsylvania

THOSE BITTER WOODS
German Tactics in BULGE
By John Malaska

As you study the horizon, you observe the scanty American positions on the *Ghost Front*. Beyond them lie the towns and villages that are your immediate objectives in your sudden thrust west: St. Vith, Malmedy, Houffalize, and, of course, Bastogne. Beyond those towns glisten the azure waters of your goal—the River Meuse. So you've carefully positioned your regiments, precisely calculated combat factors to maximize the impact of your initial attacks, anticipated your response to each and every potential combat result. All is in readiness to launch the great counterblow which will throw the Allies off the Continent. But before the thunder of rolling dice herald the beginning of another game of *BATTLE OF THE BULGE '81*, step back and ask yourself, ''Do I really know what I'm doing here?''

My intent, in this article, is to offer some suggestions and hints at attaining those objectives that will bring about German victory in the "Outbreak/Tournament" scenario of *BULGE '81* (although many of them will be applicable to the longer Campaign Game as well). I harbor no pretentions that my offerings will guarantee the capture of Liege or the crossing of the River Meuse, nor do I wish to illustrate how the German player can breathe new life into his game when it otherwise has become a frustrating task, akin to bashing one's head against a stone wall.

GERMAN STRATEGY

But before I get into tactics, I want to touch on a bit of strategy—for tactics are merely the tools which one utilizes to achieve a goal and are worthless by themselves unless those goals are clearly defined. In *BULGE '81*, those who would assume the role of von Rundstedt must recognize that the game system places a strong emphasis on movement, or to be more accurate on road movement. Equipped with a preponderance of mechanized units, the German is totally reliant on the vast highway network crisscrossing the Ardennes to maintain supply to his forces, to ensure the capability to redirect the offensive to certain specific sectors when necessary, and to ultimately deliver him to the Meuse. Of equal importance, the German must recognize that his opposite number is similarly dependent on the same road net, not only to convey reinforcements to the front but also to laterally reposition his defensive forces so that he presents a balanced front.

To the American player's benefit, the road net (which incidentally was expanded and improved by the Belgians during the peace between the great wars to promote tourism) has more of a north-south flow than an east-west one. Moreover, many of the critical road junctions are located in towns conducive to the defense. Since the muddy terrain conditions in the early stages of the campaign will effectively deny mechanized off-road movement to the Germans, virtually all combat will take place for possession of these highway arteries. If the German can succeed in denying the Allied player free access to the road net through a conscious effort to interdict road junctions, either through direct occupation or with zones-of-control (ZOCs), then he will have discomfited the Ami's ability to shift his forces to areas where they are most needed. The German will then have gained a small advantage which might later pay large dividends. Always keep this in mind: wherever possible, inhibit the movement of Allied units!

As an example, examine the mapboard in this context and note how important the town of Manhay is to the Allied defense. Without it, the American is divided in two. Should he desire to send a unit from the north to the south, or vice versa, he'll probably have to take it out of his defensive line in order to perform the transfer, due to the lengthy alternate journey which the unit must undertake. Other road junctions deserve similar consideration, and one of my favorites to strike at is Trois Ponts. Envision how the Ami player must detour his travel between Malmedy and Werbomont if the Boche are able to exert a ZOC into Trois Ponts.

In short, the German strategy should be one to achieve a local superiority in a particular region of the front by not only attempting to eliminate defenders in the locale, but also to prohibit the appearance of reinforcements or reserves which can move in to fill the void. With that in mind, I'd like to propose that the German player give thought to developing a *schwerpunkt* which places maximum strength on the Bastogne-Trois Ponts-Malmedy axis. St. Vith is in an impossible position, and should be captured easily because the American cannot afford to defend it without jeopardizing other portions of his defense in the early stages of the campaign. Malmedy, on the other hand, is critical to the German and cannot be underestimated. Not only does possession of Malmedy deny the Allied player important victory points, but it also triggers the release of two SS panzer divisions that the German needs to sustain his drive west.

Looking further west, I reiterate that it is only necessary to exert ZOC into Trois Ponts; enter it, and you risk the consequences of watching the EE9 fuel depot explode in your face! (The loss of the Stavelot POL depot can be tolerated because it's difficult to seize anyway.) But to the southwest of Trois Ponts is the main focus of the German's attention.

Historians have generally criticized Hitler's decision to support 6th Panzer Army's continuous series of unsuccessful assaults on Elsenborn Ridge,

especially after it became evident that von Manteuffel's 5th Panzer Army had been successful in breaching VIII Corps defenses, and so deserved the assistance of OB West's armored reserves. I submit that the German player should place emphasis on instituting a strong drive in the southern sector of the map from the onset. Only four American units enter the southern map edge before 22 AM, so opposition can be constructed only with the survivors of the Allied initial setup, plus whatever units the Allied player assigns to the southern region. A rapid thrust in that district might catch the Allied player off balance and may cause him to denude his northern shield as he addresses the southern problem. A key artery is the Werbomont-Aywaille-Liege highway; a sustained drive in that direction would pinch off the Hohes Venn and create a certain collapse in the north. Even if you decide not to turn north, your foe will still be faced with the difficult task of stretching his lines further west as you head in that direction.

If you are fortunate enough to rupture the Allied line, throw everything you can into the gap. Fan out to expand the bulge, especially in the direction of the Meuse. Don't give your opponent time to catch his breath. Every additional hex that you capture is one less upon which the American player can rebuild his line.

TACTIC: BRIDGE DEMOLITION

Now that I've drawn an overall strategic pattern to be pursued, I'll touch on the first tactic which the crafty German must consider as a valuable asset in his arsenal. In the *BULGE* Series Replay (published in Vol. 21, No. 3 of The *GENERAL*), the German player attempted to demolish the bridge spanning the Vesdre River at hex CC5 during the 20 PM turn. Frankly, I'm surprised that the German player waited so long to do so, because the unit positions of both sides clearly indicate that the German could have tried such demolition during his 17 AM player-turn. In the early stages of the game, when the Americans are hard pressed to construct a cohesive barrier, the German has usually the opportunity to attempt bridge demolitions.

The rules for demolition attempts are simple: draw a supply road route from a friendly map-edge, unfettered by enemy units or their ZOCs, to within three hexes (four for the Allies) of the bridge you wish to destroy, and ensure that an enemy unit is one, two or three hexes from the bridge in question. Tactical air power assigned to road interdiction missions have no effect on the supply route. Thus, if the Ami is not able to exert a ZOC into every road leading from the east map-edge toward the west, then the German will have his supply roads in the Allied rear. (On occasion, the German player will create a supply road gap in the Allied line by

Figure 1: The German 326/751 Volksgrenadier Regiment attacks the American 1/26 at 2-1 odds. On a die roll of "3-6" the Volksgrenadiers are required to retreat. If Vielsalm qualifies as a German supply source at the moment of retreat, the Germans may "retreat forward" in that direction. Otherwise, the unit is obliged to retreat back to St. Vith.
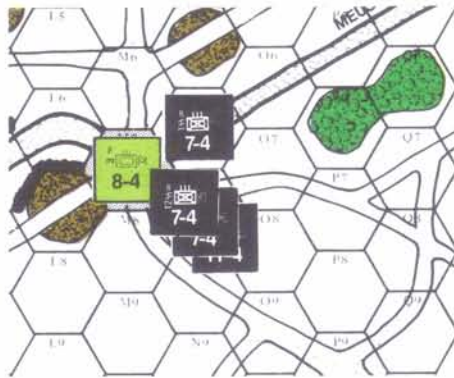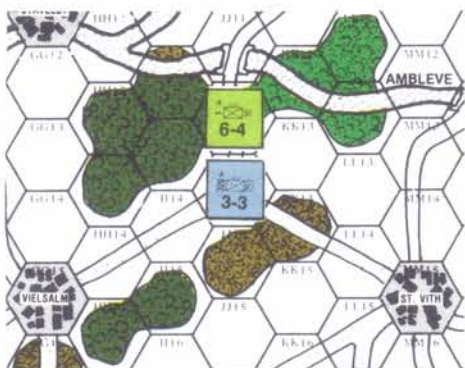

Figure 2: The American 3/32 armored regiment in Huy is attacked by German units; three are located in N7 and one is positioned in N6. An "Attacker Back 1" is rolled. The German player opts to retreat the three units in N7 to O7 before he retreats the 1SS/2. That unit must now retreat to O6. In the following turn, the 1SS/2 could move off the north bank of the Meuse River.

either eliminating a unit, or by driving off the unit in a high-odds attack.)

But let us return to the bridge over the Vesdre. It has been my experience that a demo attempt can be tried at CC5 after the 17 AM German round of combat, with the 16th Regiment of the "Big Red One" in CC2 nicely serving as the trigger mechanism. Lest you discount the meaningfulness of that river crossing's destruction, keep in mind that the 17 AM American reinforcements will be somewhat limited in their options if the Ami wish to send them south towads Bastogne. Of equal importance, the Ami will encounter difficulty later in the game when he wishes to shift his forces across the Vesdre in order to prepare a defense in the Spa-Verviers vicinity.

Bridge demolition can also be an effective means of eliminating American combat command and armored regiments. Under the *BULGE '81* rules, armored units are not permitted to ford unbridged rivers. Under the right conditions, it may be possible to blow up bridges immediately behind those unit types, thus trapping them against the river. In one game that comes to mind, three combat commands were eliminated when the bridge in their immediate rear was destroyed. The only possible escape route was for those units to rebuild the bridge. Needless-to-say, they never made it out of the pocket.

A second advantage which the German may reap through utlization of bridge demolitions is an element that is a key facet in game playing, yet is rarely addressed. I speak of the psychological aspect that magnifies an action beyond its real or intended effect. Like the "scuttlebutt" bred by the the *Einheit Steilau* commando teams, the American player may become overly distracted with the notion that bridges previously taken for granted as being secure are now liable to be blown apart behind him. Since these river crossings are fundamental to his ability to react to your moves, he might even overreact by garrisoning bridges with his scarce units, or by arranging his defense so that none of his units are within triggering range.

I do not wish to imply that the German player should undertake a policy of wholesale, random bridge destruction as opportunities are presented. (Indeed, the Boche can only repair nine demolished bridges, so a modicum of restraint must be applied.) But when executed at the proper moment, the destruction of bridges in the Allied rear by Skorzeny's merry men can have an effect that will have a favorable impact on the outcome of the game.
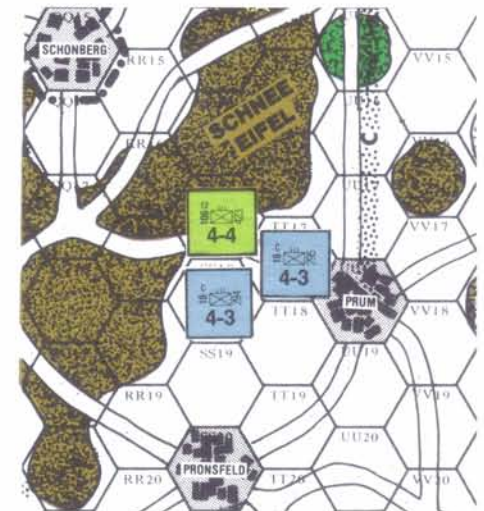
TACTIC: BLITZKRIEG

In any discussion of *BULGE '81*, it is inevitable that the topic of the "Blitzkrieg" attack will be mentioned. I'm being less than precise in using the term "attack" to describe the blitzkrieg tactic, because

the unit that becomes the object of the blitzkrieg can suffer neither loss nor retreat. Yet the blitzkrieg can be a useful tool, provided that the timing and situation are correct. With regard to the timing, a glance at the "Blitzkrieg Combat Results Table" reveals that a −2 die roll modifier (DRM) is necessary to guarantee at least a one-hex advance at odds of 3-to-1 or 4-to-1. Utilizing 40+ artillery factors to achieve the DRM is questionable when those resources could be better placed elsewhere, so a key time to use the blitzkrieg is that period (17 AM through 18 PM) when Tactical Air Power is available to provide one of those negative die roll shifts.

As far as "situation" is concerned, the German player must scan the American defenses, looking for gaps in the enemy ranks through which the German can slip his mechanized regiments. As has been noted in earlier *BULGE* articles in The *GENERAL*, this special combat advance can be useful in cutting off any possible retreat of Allied defenders, or in rushing forward to capture a key objective. But you can't be assured that a blitzkrieg attack will have the desired results unless that −2 DRM has been achieved. Thus, I believe that the blitzkrieg should be reserved for those "special occasions" when a fat target can be bagged or a key town/junction can be captured.

Now that I've made you think twice about the blitzkrieg tactic, I'd like to offer an alternative I refer to as the "Poor Man's Blitz". Earlier, I noted how German supply routes can be drawn behind the Allied lines. Well, take a good look at Rule 19.0 and observe how we're going to manipulate an Advance out of Retreat. The retreat rules, in general, require that a unit forced to retreat must traverse the most direct route possible to a supply road or town and, from there, proceed along that road to a friendly supply source which, in the German's case, is usually the eastern map-edge. (Liege and captured fuel depots also qualify, but let's assume that you haven't been fortunate to grab them.) Those retreat rules do *not* stipulate that the retreat route be in any specific direction. Thus, it is possible to advance German units forward when the CRT requires a retreat (see Figure 1). Granted, this "retreat forward" which I am advocating does not provide the flexibility of a nice "Blitz 3" or "Blitz 4" result; but it does impose the possible intrusion of a German unit into a gap in the Allied lines and makes the "Attacker Back" result more palatable. So, as with the Blitz tactic, we will threaten to undermine the American defense; hope-

Figure 3: The 18th Volksgrenadier Division's 294th and 295th regiments attack the 106/423rd at 1-1 odds with a −1 die roll modifier. If an "Attacker Back 1" is rolled, the 295th must retreat into Prum. The 294th, however, can retreat into either RR18, SS19 or TT18. By retreating into RR18, the 294th will force the 106/423 to expend a considerable amount of movement factors to escape the Schnee Eifel pocket.

fully, the Ami will, in turn, react by either readjusting his defense to minimize this possibility or will withdraw sections of his defensive line to more manageable positions. Either way, the German player has gained another small advantage which down the road might make the difference between a win and a loss.

One variation of the "retreat forward" tactic involves the interrelationship of retreats and stacking restrictions. Rule 19.1.2 states that retreats are conducted one unit at a time. So try to sequence individual retreats so that one of your units is forced to move into a hex more suitable to an offensive posture in the next turn (Figure 2). A second variation can be employed to inhibit the movement of the unit you just assaulted (Figure 3).

While I'm on the subject of retreats and advances, I'll touch on one of the more frustrating experiences that the German will encounter when playing *BULGE '81*. The situation: the German makes a high-odds attack against an American unit, only to have the unit receive the "Defender Back" result. The German cannot advance because the Ami has "backstopped" the defender with a second unit directly behind the defending unit, but the defender is allowed to execute the "Defender Back" result in a variety of ways. Occasionally, the defender will be in a position to fall back into a town or other location suitable for the defense, and will fortify himself in the American player-turn. To minimize the likelihood of this happening, the German must always ensure that he has positioned his units to limit the available retreat routes should a "Defender Back" result be rolled. Additionally, friendly noncombatants can be utilized to disrupt the retreat routes which Allied units might use to fall back upon suitable positions. The rules do not prohibit the defender (or attacker) from making a "Defender Back 4" result only a three- or two-hex actual retreat, so do your utmost to dictate the route through which the Allied units can be retreated. (See Figure 4.)

TACTIC: CRT

So far, everything I've discussed here has dealt with the significant effect which the road network can have, either directly or indirectly, on the play of *BULGE '81*. But this exercise, one way or another, has been also related to the CRT. I'll now address that table; without mentioning it, you will still not comprehend the nuances of *BULGE '81*.

I'm in strong agreement with Bruno Sinigaglio (the game's designer) when he states that the CRT is "bloodless". Indeed! What other "classic" wargame offered by The Avalon Hill Game Company allows the defender a 50% chance of surviving an attack at 8-to-1 odds with nary a scratch? No "Automatic Elimination" to be found here! An inexperienced German player will find that (barring incredible rolls of the die) utilizing the approach of moving his troops forward, attacking at the highest possible odds, and praying for "Defender Eliminated" and "Exchange" combat results is not going to cut it. The CRT simply yields too wide a variety of combat results to generate any kind of consistency.

In order to achieve success, the German must evaluate, on a per-turn basis, the overall Allied defense. Only then can he determine how and where he should attack. But the attacks must compliment your overall strategic plan; otherwise, you're simply striking out blindly hoping to achieve a breakthrough some place. This approach will not do. The German player does not have the time to bludgeon his opponent; he must employ a rapier-like thrust to disorganize the defense of his enemy and then breach his lines while resistance is minimal. To do this, the German must allocate sufficient resources to those areas deemed paramount to the achievement of his strategic aims. Some attacks may warrant
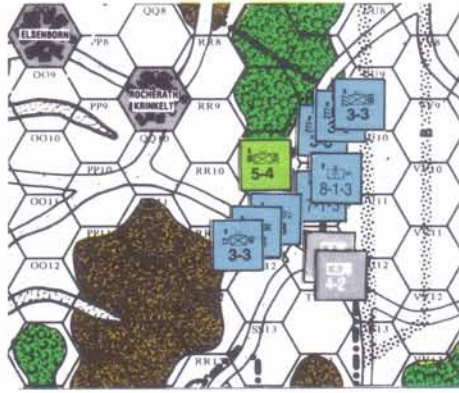

Figure 4: The American 99/394 regiment is attacked by German units positioned in three adjacent hexes at 8-1 odds with a −2 die roll modifier. If a "Defender Back 4" is rolled, the 99/394th can move two hexes to RR8, and then retreat down the road through Rocherath-Krinkelt to QQ10. The "Attacker Advance 4" is stymied.

high-odds attacks along with the allocation of heavy artillery (20+ factors) or air support; others may require only nominal odds to secure possession of a hex. If you need to capture a hex, then an unmodified 7-to-1 attack will do the trick. Don't employ 8-to-1 odds, because I'll wager that those additional attack factors could be better used elsewhere. If you can't afford to suffer an "Attacker Back" result in a particular attack, then suck it up and gather the forces necessary to obtain 3-to-1 odds.

Secondly, Allied infantry are vulnerable to being locked in an "Engagement". Accordingly, consider directing low-odds attacks at these unit types to immobilie (and later eliminate) them. To do so, the German must have the foresight to move friendly units on one/both flank(s) of the defending infantry. If an engagement occurs, you will be in a position to surround and destroy the enemy infantry in the following turn. But be aware that the units participating in the initial attempt to engage must be placed to accomodate the stacking of stronger units needed to finish off the engaged defender in the next turn. It would be rather embarrassing to be successful in gaining an engagement, and then find there's no place to put reinforcements.

On other occasions, the German might deny his opposite number a local reserve by attempting to engage infantry in a region, while simultaneously attacking other units at high odds. The American will be pressed to plug gaps in his line when some of his units are tied up in engagements. Finally, keep in mind that German armor can occasionally attack infantry in doubled positions at 1-to-1 odds to freeze the defender in place; in the subsequent turn, the armor can move off while other units finish off the defending Americans.

The "Exchange" combat result, in most cases, benefits the German because the Ami start the game suffering from "unit starvation". Keep him hungry! Unless you have a particular reason for not doing so, make the effort to ensure that an exchange is possible in each of your attacks. Furthermore, try to keep the more expendable Volksgrenadier regiments at hand to suffer the required loss.

TACTIC: UNIT CAPABILITIES

An understanding of unit capabilities should be beneficial when plotting the movement of German forces. Each unit type has its strong and weak points. As an example, the Volksgrenadiers can serve in several supportive roles.

As you advance west, you'll have to strip off units to garrison the roads that lead off the northern and southern edges of the map. Otherwise, the Allied player will be able to draw supply lines in your rear. To initially construct the line in the south, you will find that three Volksgrenadiers are needed to secure
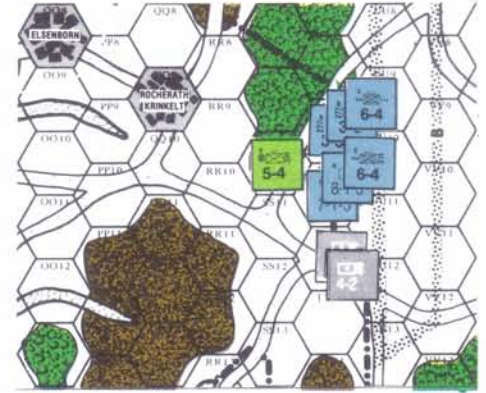

Figure 5: This time, the 99/394th is attacked by German units in only two hexes. If the "Defender Back 4" is rolled, the American must move to RR10, and then must retreat to PP8, OO10 and OO11. The German is thus free to advance the four hexes.

the OO34-Z34 entry hexes; one must be placed in WW34 to foil the entry of 4/8 22nd Regiment. (Don't site the unit in Echternach or the Composite Regiment will enter at WW34 and attack at 1-to-2 odds; if it incurs a big retreat, you'll have to weaken your front to chase down the intruder in your rear.) A second unit can be placed in either MM31 or MM32; I prefer the former. The third unit should be located in either Z31 or CC31; Z31 is desireable to negate the Allied threat of bridge demolition, but you may need to occupy CC31 to avoid the creation of a supply route from Redange through HH28 into your rear unless that bridge was destroyed. (As you can surmise, on a few rare occasions one can actually benefit from losing a river crossing.)

One other advantage which the Volksgrenadiers have over their motorized cousins is the ability to move rapidly across clear terrain. The quickest route from Houffalize to La Roche is overland, so have the infantry on hand to probe across such expanses of clear terrain.

I've already spoken about the vulnerability of infantry to "Engagement". Try to remain adjacent to as many of them as possible, lest they improve their positions. A formidable wall of forts/improved positions is one indication that the Allied player is getting the better of you.

The armored cavalry and the combat commands have a common deficiency: they cannot manuever through wooded terrain. Keep your eye out for such a unit when it can be cornered against a forest. The armor have an additional "Achille's Heel"—a lack of mobility. While many of them have large combat strengths, you might be able to isolate them from the overall defense by trying to infiltrate around their positions or by securing a "Contact" or "Engagment" when they are off-road. Even if the armor can move away, its poor off-road performance will leave it out of synch with the defense and may allow it to become a target for elimination.

The Allied corps artillery are a powerful asset to your opponent. Most likely, you will see them positioned directly behind the infantry/armored unit to which they are allocating defensive fire support. In this manner, they thwart any possibility of advance after combat. I can only suggest that you carefully look for the opportunity to execute the 6-to-1 "Artillery Overrun", especially in the early stages of the contest. A real nightmare presents itself when the Allies begin to ravage your line with the artillery firepower they have amassed.

Keep your own artillery out of harm's way too. This won't be too difficult with the ranged weapons, but the Nebelwerfers pose a problem because they must move right up to the line to attack. Always have them accompanied by a non-artillery unit, and

be certain that you've considered how you will perform an exchange or advance when the Nebelwerfers are present. The Ami will swoop down on them, if they are left unattended, like a hawk on a brood of chicks!

CONCLUSION

My final remarks relate to the all-important first turn of the game. Simply put, you've got to get out of the blocks quickly while the gettin's good. If momentum cannot be generated at the start of the campaign, it will be extremely difficult to sustain as the match progresses.

Most of my *BULGE '81* games are played through the mail, and the *Einheit Steilau* optional rule cannot be readily incorporated into those games. To compensate, the German player is given the "SS Panzer Commitment", the Von Der Heydte paradrop, and the 150 Brigade optional rules. The Allied player is allowed the favorable "Armor Attack Restriction" option, as well as the advantage which PBM naturally bestows upon the defender by allowing him to review all combat results before performing required retreats.

Bob Beyma's opening assault (published in Vol. 19, No. 2) is quite solid. I can offer only two minor adjustments which I feel further enhances its potential. The first is that which I noted earlier on the attack versus 99/394. The second requires that the 5/15 Luftwaffe mechanized regiment be put in TT31 in the attack on 9th CCA. The 5/15 contributes little to the original attack on 28/109. Its placement farther to the southwest allows the German to threaten the road to Martelange, especially if 28/109 and 4/12 are both locked in engagements.

I hope that my offerings will spark a renewed interest in the game I consider to be one Avalon Hill's better efforts. More importantly, I trust that you'll be able to include my suggestions in the German offensive repertoire with good results. You can take them to the bank . . . of the River Meuse!

☆

OPPONENTS WANTED

Opponents wanted for SL, RF, WP, PAA and anything else! Want to learn 3R. Any gaming clubs in Juneau? Will answer all letters. Greg Brayton, 4224 Ptarmagin St., Juneau, AK 99801, (907) 789-0311.

Interested in GSL pbm; rules in The *GENERAL* Vol 22, No. 1. Anyone willing to part with spare SUB game? I. Crawford, Rt. 1, Box 43, Duncan, AZ 85534.

Does anybody play pbm AF and/or DL? I'll play any scenario either side. Any time period is OK, lets fly! If anyone's interested, please write: Charles Greger, 2621 McCulloch, Apt. 1A, Lake Havasu City, AZ 86403.

Join the East Valley ASL Club. Contact: Stephen A. Brasseur, 1518 E. Gemini Dr., Tempe, AZ 85283, (602) 838-4258.

Ftf opponents wanted in the central Arkansas area. Play most AH and others. Mature adult gamer. John Loy, Rt. #3, Box 206AA, Cabot, AR 72023, (501) 843-4302.

AREA 1600 (untested) wants to play pbm or ftf 3R, 1776, BB'81, or World in Flames. Will travel to play. Jerry Ingersoll, 16 Westbrook, Hot Springs, AR 71901, (501) 623-5404.

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Non-rated pbm opponent for DEV, using system in The *GENERAL*. Also interested in pbm multi-player games like EIA, BRIT, CIV or GOA. Peter Martin, 442 F St., Apt. B-32, Chula Vista, CA 92010, 425-5822.

California newcomer badly wants pbm DIP players and GM. Randy Davis, 3019 Bertram Ct., Concord, CA 94520, 680-8789.

Opponents wanted for SL, ASL series, FL, TAC, WQ or FITG. Ftf only! Please write or call any weekday or weekend. Mike Smith, 406 Radden Rd., Ft. Ord, CA 93941, (408) 899-4607.

Hey folks need an opponent? Just started AREA rating gaming. A serious 14 year old gamer, is desperate in finding an opponent. Will play pbm for FT, W&P, PL. Will play in Lafayette any game (fast learner). Corvin Bazgan, 944 Dewing Ave., #A, Lafayette, CA 94549, 283-1445.

Wanted ftf players in Bay area. GI-ASL, FT, CIV, TLD and others. John Wilson, 3499 E. Bayshore, #14, Redwood, CA 94063, (415) 364-6350.

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AREA 1800 experienced TRC player seeks opponents for flexible play. Richard Phelps, 860 S. 8th St., San Jose, CA 95112, (408) 998-8642.

Experienced gamer (getting rusty) seeks ftf or pbm opponents for most AH games. AREA 1200 (prov.). David W. Bowers, 1904 Miraplaza Court #18, Santa Clara, CA 95051, (408) 984-9816.

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New kind on block wishes player who will challenge me. Will play GOA, STAL, FitW. All letters answered. Try me if you dare. Jesse Severe, 105 Lincoln Street, Sheffield, IA 50475, (515) 892-4639.

Ftf opponent or club wanted in greater CINTI./N. KY area: UF, VITP, 3R, PLA, PB, KREM, EIA, EIS, CIV, HW. Mike King, 2416 Adams Ct., #166, Ft. Mitchell, KY 41017, (606) 341-5454.

22-year old novice seeks ftf PL, SL players in BR AREA. AM LSU student, mainly play weekends during school. BTWN. SEM. can play anytime. Andy Bourgeois, P.O. Box 206, Brusly, LA 70719, 749-3270.

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Want opponents for ftf or pbm 3R, W&P, MD, AK, PK, MD (will travel to play a game in Louisiana). Ricci Moran, P.O. Box 1065, Ruston, LA 71273, (318) 251-9038.

Wanted ftf opponents for GOA, 3R, WSIM or most other games. Henry Carey, 130 Forest Ave., Lot 14. Orono, ME 04473, 866-4040.

Looking for ftf opponents in South Maine area. Enjoy SL, PB, PL or others. Larry Moffit, 27 Wildwood Dr., Saco, ME 04072, (207) 282-3169.

Gamer with good attitude seeks competition in BR, DIP, TRC and HW. Wish very much to join club in Balto-Washington area. Ftf only. Britt Rife, 1940 Briggs Chaney Road, Silver Spring, MD 20904, 384-8338.

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25 year old (prov.) AREA 1200 player seeks opponents for Rated pbm TRC games. Any ARPAVET or USENET e-mail players out there? Ralph Marshall, 11 Davis Rd., #C10, Acton, MA 01720, (508) 635-9696.

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AREA 1500 seeks pbm/ftf 3R, TRC, AK, WAS, VITP, GI, FT. Rated or Non-Rated accepted. Kurt Romig, 1314-B University Village, East Lansing, MI 48823, (517) 355-6193.

Experienced gamer seeks same to learn ASL with. I have BV, PARA, PAKT, WOA, and Last Hurrah. Will play other games ftf, too. Aaron Schwoebel, 8207 Warbler, Kalmazoo, MI 49002, (616) 375-4645.

Opponents sought in Detroit Metro, Ypsi, Ann Arbor area. Familiar with SL, 3R, MD, UF, BANZ, DD. Willing to learn or teach. Steven Kreft, 38035 Walnut, Romulus, MI 48174, (313) 941-3087.

Adult gamer 1200 (prov.) seeks 2—game pbm match in TRC; sudden death victory conditions with third person; also GE'88 and Victory's CW. David Wright, 495 S. Park Ave., Helena, MT 59601, (406) 443-1784.

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Reliable novice gamer wants ftf or pbm oppo-nent. Familiar with PL and SL, but I'll try any game. Flexible schedule. Gary Kane, 1757 E. Rochelle Ave., #4, Las Vegas, NV 89119, (702) 732-1157.

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Sick of solitaire. Looking for ftf opponents in NJ. 3R, W&P, SOA, CIV, WAT, DIP, AK, others. Not the best player, but room for improvement. Douglas Kent, 54 W. Cherry St., #211, Rahway, NJ 07065, (201) 815-0361.

Adult gamer wants info on any NYC or LI war-game clubs. Any local gamers with info or ideas? Paul Jordan, 147-15, 46 Ave., Flushing, NY 11355.

If you're interested in "play-by-computer" or de-velopment of public domain software supporting wargames, then pick up my message on the fol-lowing BBS's: NYC PC Club, NY (212) 633-1870 8N1 RBBS, CooperWorks, WI (608) 271-3685 8N1 PCBBS. Go to the GAMES sub-conference. On DELPHI my user name is ANOTHERGUY. I hope to confirm a BBS in the west and south by the end of this year. I can also be contacted as Frank Lucas, P.O. Box 4826, Ft. Greene Sta., NY 11240.

AREA 1900 verified seeks pbm opponents 1600+ for DD'77, BB'65. Two game matches with one game each side. Lynn Barlow, 5481 Booth Hill Road, Locke, NY 13092, (607) 898-4079.

Veteran gamer seeks able opponents any age, South Westchester, North Bronx. Ftf DIP, 3R, TA all classics—form regular group? Joe Brophy, 16 Beachfront Lane, New Rochelle, NY 10805, (914) 636-6317.

Looking for ftf in TRC, UF, VITP, WAS. Also pbm in TRC also play sports games SPB, Pay-dirt, SPF. Any clubs or leagues in area? Dennis Nicholson, 18 Valley Dr., Pawling, NY 12564, (914) 855-3387.

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Reliable adult opponent wanted for pbm advanced game 6th Fleet. I use honor system and have a proven pbm system. Joe Strzelecki, 1657 Wilbur Ave., Fairborn, OH 45324, (513) 878-5269.

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Looking for gamers in the Lynchburg area. Veteran player with over 12 years experience. Hope to start weekly game session. Michael C. Brophy, 364 Kitty Hawk Square, Lynchburg, VA 24502, (804) 237-4984.

Ftf multi-player gaming in Wash.-Balto. area. Send SASE for sample of Politesse, newsletter of Warthog Gaming Group. Ed Wrobel, 6204 Bardu Ave., Springfield, VA 22152, (403) 451-2018.

Looking for pbm Pax Britannica players, GM. Also ftf Thunder At Cassino. B. Alex Sanders, 1329 Old Clubhouse Rd., Virginia Beach, VA 23456, (804) 427-2314.

Need opponent for ASL in D.C. area. I have all current modules. Will travel. John Brennan, 2021 Mayflower Drive 6, Woodridge, VA 22192, (703) 491-3997.

1914 GUAD best offer some counters missing; many others available. Plus old *GENERAL*s. SASE for list. Quiting hobby must sell. P. R. Scroggie, P.O. Box 1345, Medical Lakes, WA 99022.

Wanted: serious wargamers for pbm FITG. I would also like to start a multi-player pbm GSL using system in The *GENERAL* Vol. 22, No. 1. Chuck Lietz, P.O. Box 221, Stevenson, WA 98648, (509) 427-8977.

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Adult gamer 900 (prov.) wants pbm PB also PL, SL, 3R; but need kit or system for these. All let-ters will be answered. Ben Gallant, 41 Laurier Dr., Oromocto, Prov. Canada, N.B. E2V 1P7, (506) 357-7212.

New Club needs recruits and veterans. You name it, we'll try it. ASL most played game. Mike Veniez, 105 Park St., Sydney, Canada, N.S. B1P 4W6, (902) 539-5225.

Wanted ftf opponent ASL, BV, SOF, Partisan, VG games. Will play other AH games. Wayne Harrell, HQ AAFES-EUR-AD, APO, NY 09245, (089) 690-8304.

Any pbm gamers in Italy, Europe, USA? Desperately seeking! AK, AIW, DIP, FT, MD, PAA, RW, WSIM! AREA Rated! All letters answered! Any side! Paolo Rubino, Viale UNITA O'ITALIA 13, FORMIA (LT), ITALY 04023.

Ludwigsburg-Kornwestheim strategic games club invites you to attend our meetings on the last Saturday of every month at 1200 hours at Wilkins Rec. Center. Michael Cetta, F Co 51st, INF, Box 1049, APO NY 09279, Ludwigsburg, West Germany, 07141-57433.

Where are you GSMC wargamers? I'm ready for ftf play today in UF, FP, FT, FL, GL, WSIM and others. Experienced will gladly teach new-comers. Paul Lebowitz, Box 125, B Co 511th MI BN, APO NY 09279-0270, Stuttgart, Germany, 07141 605594.

THE QUESTION BOX

THIRD REICH

7.1 After United States' entry, are British-controlled hexes jointly controlled by both Britain and the United States?
A. Of course.

14.31 & 34.33 The Anglo-French cooperation restrictions are in effect. French armor and British infantry attack a hex; the British infantry advances into the hex. May British armor now exploit from that hex?
A. Yes. An Anglo-French Breakthrough may be utilized by the country whose unit advances into the hex, regardless of which country's armor is used to meet the armor requirement of 14.31.

14.4 Exactly what is a vacant hex?
A. A hex without a defending ground unit; an airbase, air or naval unit in a hex does not disqualify it as a vacant hex.

16.1 & 36.22 Can Italian units be lent, then SRed in the same turn?
A. Yes—either Germany or Italy uses one SR for the loan; Germany then uses an additional SR for actual redeployment. (The same applies for units returned to Italian control.)

21.4 Does the application of this rule prevent a DoW by the United States?
A. No—the following should be added:
21.41 A major power declaring war against another major power must either move forces into territory controlled by that major power or conduct an Offensive or Attrition option attack against that major power's forces. Failure to do so results in a revocation of the DoW (21.4) [EXCEPTION: the United States' DoW against the Axis powers].

24.2 If a colony is conquered by the establishment of control over all its cities and ports, does the conqueror thereby gain control over all other hexes of the colony?
A. Yes; the conqueror does not need to move through each hex in the colony to establish control over them. Colonies are treated as minor countries, except for the differences set out in 24.4.

24.23 Do the special provisions for tracing supply in conquered minor countries apply if supply is traced *through* conquered Minor to units which are not in that minor country?
A. No.

25.4 Are there any restrictions on placement/employment of active Vichy units?
A. No.

25.41 Can Finnish units enter countries other than Russia?
A. Yes, but the restrictions of 25.41 still apply.

26.8 Do these restrictions still apply if Paris is only Axis-controlled, not occupied?
A. Yes, although normal attacks would be permitted if the Allies regained control of Paris during the Movement Phase.

26.91 If Russia should recapture Moscow, does Germany then lose 15 BRPs?
A. Yes—if it had the 15 BRPs added during the previous YSS (i.e., if Germany had captured Moscow during a previous year).

27.1 Can British units trace supply from Allied capitals, such as Paris?
A. Yes—this is not prohibited by Rule 34. Note that 45.5 expressly forbids such supply from Russian sources, clearly implying that the Western Allies are allowed to trace supply from each other's supply sources.

27.12 If the Axis capture an Egyptian port and the Allies recapture it, does it again become an Allied supply source?
A. Yes.

27.24 & 37.3 Can sea supply be traced from a supplied Western Front port around Africa to Suez?
A. No—sea supply routes must be traced on the mapboard.

28.23 May air units stage over enemy-controlled territory?
A. Yes; note that 19.3 specifically prohibits this during Pass options, but normally it is permitted.

28.451 Are naval units in a base attacked by air units eligible to conduct interception missions against the attacker's fleets during the attacker's Combat Phase?
A. Yes—the air attack is resolved after all naval combat is resolved and the defender's surviving fleets have returned to their base.

29.2 May inverted (previously used) naval units make a base change?
A. Yes—a naval unit may change base and perform an activity resulting in inversion, in either order, in the same turn.

33.62 Britain grants Foreign Aid to Rumania by sending it around Africa to Suez; what is the SR cost?
A. Two.

37.4 May Gibraltar be invaded by fleets based on the Western Front?
A. Yes.

42.1 May the Allies SR ground and air units to Russia via Murmansk?
A. No, Murmansk and Lend-Lease routes may be used to only send BRPs.

KREMLIN
The Satiric Game of Soviet Political Intrigue
$22.00

There is no doubt that *KREMLIN* has been an instant hit with those who enjoy multi-player games—especially those that reward devious play. Indeed, the reader-generated ratings saw it score a better Overall Rating (2.28) than that grand-daddy of all political games, *DIPLOMACY*.

Blessed with serviceable graphics, the heart of the game is its unique system of determining control of the various members of the Politburo, current and future. One is never quite sure if that fellow preparing to purge all below him is under one's control or not. Therein lies the fascination, and much of the humor, in playing this game. With a number of innovative game concepts, it is surprising that the ''Completeness'' rated so well (3.33) and a real tribute to the developer that ''Playability'' (1.81) is adjudged third-best in our extensive line. ''Excitement Level'' (2.19) is second only to that of *UP FRONT*, while ''Play Balance'' (2.20) rates—as to be expected in any multi-player title—very high. Best of all, the game is fast-paced as can be seen from the fact that the average ''Game Length'' is but one hour, 59 minutes.

Only in ''Authenticity'' does the design dip below our average ratings; but then, we never claimed it was anything but satire.

How much true relation there may be to the real-life political process in Soviet Russia we leave for the players to judge. The selected ratings for *KREMLIN* have been added to our ongoing listing at the right since it garnered more than the 50 responses required; below are listed all the ratings for his irreverent inside look at those fun fellows of the Politburo:

Overall Value: 2.28
Components: 2.51
Map: 2.72
Counters: 3.32
Rulebook: 2.75
Complexity: 3.64
Completeness of Rules: 3.33
Playability: 1.81
Excitement Level: 2.19
Play Balance: 2.20
Authenticity: 5.24
Game Length (average): 11.94
  Shortest: 1 hr., 15 mins.
  Longest: 2 hrs., 44 mins.
Year: 1988
Type: MP
Sample Base: 63

READERS BUYER'S GUIDE

The following games are ranked by their reader-generated overall Value rating. Further aspects of reader response to our titles are indicated by the ratings in other categories. By breaking down a game's ratings into these individual categories, the gamer is able to discern for himself where the title's strengths and weaknesses lie in the qualities he values highly. Readers are reminded that ratings take the form of a numerical value ranging from 1 to 9 (with "1" equalling "excellent" and "9" equalling "terrible"). However, the Game Length category is measured in multiples of ten minutes (thus, a rating of "18" equates to three hours). A "+" following the Year of release indicates that the game is continued or complemented by additional modules in successive years (for instance, the ratings for SL reflect the entire system—original game plus add-on modules). Game Type is broken down into three broad categories: SO=Solitaire; MP=Multi-Player; 2P=Two Player. Finally, it should be noted that a minimum requirement of 50 responses (see the "Sample Base") was judged necessary for a valid representation; additional titles that garner such will be added to the RBG in the future.

WARGAME RBG

Title	Overall Value	Components	Complexity	Completeness	Playability	Authenticity	Game Length	Year	Type	Sample Base
ADVANCED SL	1.80	1.77	9.25	2.11	3.44	2.04	33.02	1985+	2P	172
1830	1.85	2.00	3.88	2.72	2.04	3.20	24.52	1986	MP	50
CIVILIZATION	1.97	2.60	3.20	2.03	1.72	4.09	32.08	1982	MP	152
FLATTOP	2.00	2.47	8.61	3.12	3.56	1.76	43.96	1981	2P	95
EMPIRES IN ARMS	2.08	2.45	8.08	2.94	3.84	2.11	156.86	1986	MP	71
UP FRONT	2.11	2.24	4.36	2.83	2.38	3.56	10.16	1983+	2P	126
RUSSIAN FRONT	2.12	2.33	5.32	2.88	2.67	2.40	40.16	1985	2P	113
KREMLIN	2.28	2.51	3.64	3.33	1.81	5.24	11.94	1988	MP	63
BRITANNIA	2.31	3.08	2.93	2.89	2.07	3.52	23.72	1987	MP	77
VITP	2.55	3.12	2.56	3.32	1.91	5.56	21.09	1977	2P	183
RUSSIAN CAMPAIGN	2.60	3.35	3.85	3.10	2.28	4.22	35.44	1976	2P	220
CASSINO	2.68	2.71	4.43	2.75	2.32	2.63	23.67	1988	2P	52
DIPLOMACY	2.71	3.36	3.00	2.69	2.92	5.16	33.26	1976	MP	169
ST. NAZAIRE	2.72	2.56	4.01	3.12	2.80	2.52	18.92	1987	SO	98
FIREPOWER	2.76	3.03	6.42	3.63	3.76	2.88	15.48	1985	2P	94
STORM OVER ARNHEM	2.78	2.68	3.84	2.84	2.32	3.49	24.35	1981	2P	87
FLIGHT LEADER	2.79	2.20	4.62	3.00	2.77	3.20	10.18	1986	2P	76
BULL RUN	2.80	2.67	3.80	2.95	2.96	2.93	23.76	1983	2P	62
DEVIL'S DEN	2.81	2.85	5.04	2.99	3.52	2.61	24.58	1985	2P	60
B-17	2.83	2.87	2.93	2.83	2.00	3.33	8.82	1983	SO	192
SQUAD LEADER	2.84	2.11	8.05	3.68	4.27	3.00	21.37	1977+	2P	231
2nd Fleet	2.89	3.35	5.27	3.44	3.28	3.55	32.23	1986	2P	55
WS&IM	2.92	3.24	5.64	3.00	3.04	2.60	20.07	1975	2P	172
THIRD REICH	2.95	3.56	8.83	3.70	4.00	3.51	45.83	1981	MP	227
BULGE '81	2.96	3.11	4.21	3.24	2.92	3.19	28.02	1981	2P	155
PANZER LEADER	3.12	2.79	5.63	3.72	3.32	3.82	19.47	1974	2P	210
WAR & PEACE	3.13	3.44	4.55	3.68	2.95	3.15	36.80	1980	2P	138
TITAN	3.16	2.68	3.48	2.66	2.47	4.48	29.08	1982	MP	65
Civil War	3.20	3.69	6.95	3.92	4.17	3.58	46.96	1983	2P	112
DUNE	3.21	2.48	3.29	2.93	2.88	4.28	15.84	1979+	MP	87
MAGIC REALM	3.29	2.44	8.41	4.08	4.20	3.79	20.76	1979	MP	75
Battle Hymn	3.32	3.33	5.24	4.32	3.48	3.89	21.26	1986+	SO	51
NAVAL WAR	3.35	4.20	1.12	3.40	1.60	6.72	6.00	1983	MP	81
STARSHIP TROOPERS	3.36	3.12	4.84	3.32	3.20	3.12	16.37	1976	2P	110
KINGMAKER	3.39	3.21	5.65	4.48	3.49	4.63	27.98	1976	MP	141
PG GUDERIAN	3.40	3.24	5.44	3.20	3.28	3.32	22.87	1984	2P	90
PATTON'S BEST	3.43	3.22	4.16	4.23	3.25	3.87	14.13	1987	SO	109
GLADIATOR	3.44	3.36	3.89	3.32	2.56	3.20	8.69	1981	2P	56
CIRCUS MAXIMUS	3.47	3.60	3.28	3.39	2.64	3.36	11.70	1980	2P	91
6th FLeet	3.48	3.04	5.64	3.73	3.88	3.64	47.67	1985	2P	59
AIR FORCE	3.48	4.27	5.36	3.64	3.61	3.12	12.90	1980+	2P	76
ARAB-ISRAELI WARS	3.49	3.25	6.93	3.72	3.52	3.72	16.37	1977	2P	123
PANZERBLITZ	3.56	3.55	4.92	4.16	3.26	4.50	18.25	1970	2P	215
PA AFRIKA	3.63	3.68	4.23	3.36	3.19	3.88	25.14	1981	2P	80
Pacific War	3.64	3.57	7.98	4.32	5.28	3.19	120.63	1986	2P	66
Pax Britannia	3.64	3.60	4.85	3.91	4.25	4.61	52.14	1985	MP	50
MIDWAY	3.65	4.48	2.80	3.16	2.43	4.52	21.10	1964	2P	130
DWTK	3.68	3.56	4.88	4.28	3.85	3.89	22.82	1981	MP	52
Ambush	3.68	4.08	4.94	4.40	3.91	4.61	19.69	1983+	SO	121
FORTRESS EUROPA	3.73	3.23	5.36	3.78	3.88	3.57	42.44	1980	2P	157
AFRIKA KORPS	3.77	4.43	2.20	2.84	1.88	5.40	21.44	1964	2P	167
HITLER'S WAR	3.80	3.89	4.20	4.25	3.44	4.68	34.79	1984	2P	78
WIZARD'S QUEST	3.82	3.07	2.11	2.94	2.15	4.92	20.92	1979	MP	85
Vietnam	3.89	3.35	8.60	3.83	5.26	3.75	90.86	1984	2P	60
WAR AT SEA	4.04	3.94	1.40	3.40	1.87	6.72	12.80	1976	2P	155
BLITZKRIEG	4.19	4.36	5.84	3.87	3.60	5.57	33.76	1965	2P	136
1776	4.25	3.64	5.28	3.88	3.24	4.40	26.30	1974	2P	154
D-DAY	4.32	4.73	3.56	3.45	2.91	5.08	27.16	1977	2P	125
RICHTHOFEN'S WAR	4.33	3.78	3.99	3.60	3.24	4.87	8.23	1983	2P	53
PANZERKRIEG	4.35	4.02	5.11	3.84	3.83	3.28	24.49	1973	2P	137
GUNS OF AUGUST	4.41	4.00	5.32	4.56	4.51	3.83	44.72	1981	2P	139
WATERLOO	4.44	4.48	2.24	3.08	2.21	5.55	17.99	1962	2P	104
Mosby's Raid	4.53	4.55	4.63	4.36	4.42	5.13	20.85	1985	SO	60
LUFTWAFFE	4.80	4.27	4.16	4.08	3.91	5.33	20.08	1971	2P	170
Nato	4.96	4.16	6.28	5.24	4.76	4.63	33.70	1983	2P	73
TACTICS II	5.88	6.22	1.52	3.89	2.96	6.80	14.87	1961	2P	108

The "Anniversary Issue" of The *GENERAL* (Vol. 25, No. 1) brought a wave of letters, and a 2.89 Overall Rating. Not surprisingly, Don Greenwood's reporting of a *KREMLIN* game to introduce this fascinating design dominated the polling, with twice as many votes as any other single article. Another method I use to judge interest in what we've presented, however, are the letters from readers; if they have taken the time and expense to write personally, then obviously we've managed to excite them. This time, we received quite a few letters about "The Editors Speak" and "An Anniversary Smorgasbord," as well as debating the views of Mr. Owen and Mr. Rivas. If nothing else, besides being fun, this issue caused some to give thought to who we wargamers are and where we are headed. Speaking for the 25 authors (21 in the "Smorgasbord" along with the three editors and Mr. Rivas) who contributed, I am sure this was the intent. Based on a random sampling of 200 responses, the ratings for all the articles are as follows:

BLOOD IN THE POLITBURO 394
AN ANNIVERSARY SMORGASBORD 186
THE EDITORS SPEAK 115
POWER POLITICS 111
A HISTORIAN'S GUIDE TO
  AH WARGAMES. 97
DINOSAUR HUNTING 79
PUTTING SPICE IN SPACE 61
THE TOP TURRET GUNNER
  DOESN'T ANSWER 49
COMING ATTRACTIONS 43
AH PHILOSOPHY 22
SECOND FLEET EXPANSION 18
SPORTS SPECIAL 15
COMPUTER CORNER 10

Mr. Steven Wheeler's in-depth look at the Bulge scenarios for the old favorite *PANZER LEADER* has brought him the Editor's Choice Award for Vol. 24 of The *GENERAL*. "Fighting the PANZER LEADER" appeared in the second issue of last year (and response to it encouraged Mr. Wheeler —thankfully—to produce more on this classic game, including the article in this issue). As always, the competition was most impressive, and Mr. Wheeler's effort just barely edged out fine articles by Mark Nixon on *THIRD REICH* and James Werbaneth on *FIREPOWER*. Mr. Wheeler will receive a $100 bonus for the award, plus a lifetime subscription to The *GENERAL*. The complete list of nominees and their percentage of the total votes cast by responding readers is as follows:

FIGHTING THE PANZER LEADER
  by Steven Wheeler. 20.6%
AXIS SOUTHERN YEARNINGS
  by Mark Nixon 17.8%

Infiltrator's Report

THE PACT
  by James Werbaneth 16.4%
THE VIEW FROM DOWN UNDER
  by Harry Rowland & Greg Pinder . . .13.1%
BY THE BOOK
  by David Bieksza 12.0%
FIRST IMPRESSIONS
  by Robert Medrow 8.6%
RUNNING THE GAUNTLET
  by Eric Noreen. 7.4%
FROM STURDY STOCK
  by Phil Rennert 4.9%
THE DANCE OF DEATH
  by John Hyler 3.2%

Penguin Dip ("PENGUIN what?") is a rather whacky little 'zine devoted to *DIPLOMACY* produced by Stephen Dorneman (94 Eastern Avenue #1, Malden, MA 02148). Besides the several ongoing PBM games which carried—with some of the most entertaining and off-the-wall "Press" around—each issue includes the ramblings of its editor on a variety of subjects and an extensive letter column that may touch upon anything imaginable. The latest issue (#20) which flapped into our offices a couple of weeks ago also had a most interesting piece on *Computer DIPLOMACY*. A one year, ten-issue subscription to *Penguin Dip* is $15.00; for more information, contact Mr. Dorneman.

Don Greenwood is at it again—looking for indentured servants to playtest his next two projects. The games in question are *New Worlds* and *Republic of Rome*; former is a game dealing with colonization of the Americas and the latter with life as a Senator in the Roman Republic. Both are multi-player games with considerable economic and diplomatic leanings. Volunteers must be willing to spend 20 hours per month in the test for a period of three months, and send in regular written reports. Only those with access to a pool of three or more regular opponents equally willing to playtest will be considered. Applicants are cautioned that playtest materials are pre-production quality and can involve considerable labor to assemble. Remuneration is limited to a free copy of the published game for each group co-ordinator. We regret that, due to the volume of mail such invitations usually generate, we will be unable to reply to any but those actually accepted for the playtest.
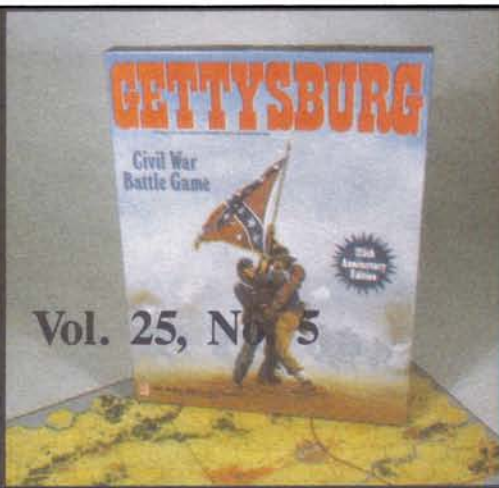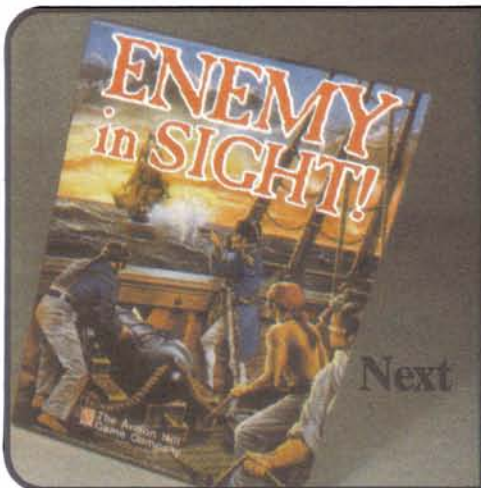
In Contest 143, the best chance to save ol' Leonid was to play the "Visit Sanatorium" card on him immediately. But only two of the many respondents to our *KREMLIN* contest thought of that trick—David Belado of Burnaby, BC, and Gerald Delker of Duarte, CA. And that gave them control of Karrienko. The sneak assassination of Palavrian and denunciation of Schukrutoff immediately followed. And both winners in Contest 143 used the "Cuban Missile Crisis" right after the Health roll to bring Bungaloff back for his attempt to Wave at the end of the fourth turn, something we'd overlooked.

Contest #144 posed the most basic of problems for *TAC AIR*—how to set up the American units in Scenario 1. There are, as Craig Taylor noted in the Series Replay (page 12 in Vol. 25, No. 2), two approaches to defending T22: a "tight" defense and a "forward" defense. Regardless of which was chosen, any solution must begin with all units in supply and in command to be considered valid. With this as a starting point, each approach can be refined:

	Tight	Forward
9th Engineer:	Q16	Q16
223rd Helicopter:	O20	P16
3/7 Air Def HQ:	R21	R21
A/3/7 Air Def:	T21	R20
3/7 Supply:	Q20	Q21
2C HQ:	T22	S18
2C Artillery:	T19	S16
2C Art Supply:	R20	S17
2C Helicopter:	X20	W16
2C Armored:	V21	R14
A/C Cavalry:	W18	Y12
B/C Cavalry:	T18	T11
C/2C Cavalry:	Q18	N12
2C Supply:	T20	S15

Regardless of which approach was taken, certain other precepts were also expected. The artillery and air defense units are placed so as to cover all ground units. An enemy approach along the east bank is to be guarded against. The 9th Engineers are placed so as to defend Dreisechseckigdorf, making maximum use of their special abilities in this regard, from which they could fall back to blow bridges should the need arise. Helicopters were placed to guard and extend the flanks. Headquarters and supply units were placed in well-protected locations, and with the ability to retreat away from enemy penetrations.

As stated in the contest there are many minor points to be considered—and a great deal of latitude was allowed in judging the entries so far as these are concerned. But the above should govern the American defensive set-up, regardless of whether "tight" or "forward."

Next

GETTYSBURG
Civil War Battle Game

Vol. 25, No. 5

Vol. 25, No. 6

PLATOON $16.00
Man-to-Man Tactical Combat in Vietnam

INSTRUCTIONS:

Rate each category by placing a number ranging from 1 through 9 in the appropriate space to the right ("1" equating to excellent; "5", average; "9", terrible). EXCEPTION: Rate items 7a and 7b in terms of minutes necessary to play the game, in ten-minute increments. (Example: If you've found it takes two and a half hours to play the basic scenario of *HITLER'S WAR*, enter "15" for category 7a.) For an explanation of the categories, refer to the AH Philosophy of Vol. 24, No. 5. Enter ratings only for those categories relevant to the game in question. Note that AH's ratings for Complexity, Year of Publication and Type (2P=two player; MP=multi-player; SO=solitaire) have been provided for your information.

1.	Overall Value	_____
2.	Components	_____
2a.	*Mapboard*	_____
2b.	*Counters*	_____
2c.	*Rulebook*	_____
3.	Complexity	_____
3a.	*Avalon Hill Complexity*	2
4.	Completeness	_____
5.	Playability	_____
5a.	*Excitement Level*	_____
5b.	*Play Balance*	_____
6.	Authenticity	_____
7.	Game Length	_____
7a.	*Shortest*	_____
7b.	*Longest*	_____
8.	Year of Publication	1987
9.	Type	2P

WHAT HAVE YOU BEEN PLAYING?

Top ten lists are always in vogue—be the subject books, television, shows, movies or even games. The public seems never to tire of seeing how its favorite way of spending its leisure time stacks up against the competition. So, to cater further to your whims (and to satisfy our own curiosity), this is The *GENERAL*'s version of the gamer's top ten. From the responses to this form the editors produce the regular column "So That's What You've Been Playing" found elsewhere in this issue.

We aren't asking you to subjectively rate any game. That sort of thing is already done in these pages and elsewhere. Instead, we ask that you merely list the three (or fewer) games which you've spent the most time playing since you received your last issue of The *GENERAL*. With the collation of these responses, we can generate a consensus list of what's being played by our readership. This list can serve both as a guide for us (for coverage in these pages) and others (convention organizers spring instantly to mind). The degree of correlation between this listing, the Best Sellers Lists, and the RBG should prove extremely interesting.

Feel free to list any game of any sort regardless of manufacturer. There will be, of course, a built-in bias to the survey since the readers all play Avalon Hill games to some extent; but it should be no more prevalent than similar projects undertaken by other periodicals with special-interest based circulation. The amount to which this bias affects the final outcome will be left to the individual's own discretion.

1. _____

2. _____

3. _____

Opponent Wanted   50¢

1. Want-ads will be accepted only when printed on this form or a facsimile and must be accompanied by a 50¢ token fee. No refunds. Payment may be made in uncancelled U.S. postage stamps.
2. For Sale, Trade, or Wanted To Buy ads will not be accepted. No refunds.
3. Insert copy on lines provided (25 words maximum) and print name, address, and phone number on the appropriate lines.
4. Please PRINT. If your ad is illegible, it will not be printed.
5. So that as many ads as possible can be printed within our limited space, we request that you use official state and game abbreviations. Don't list your entire collection, list only those you are most interested in locating opponents for.

Advanced Squad Leader—ASL, Afrika Korps—AK, Air Force—AF, Arab-Israeli Wars—AIW, Blitzkrieg—BL, Britannia—BRIT, Battle Of The Bulge—BB, Bull Run—BR, Circus Maximus—CM, Civilization—CIV, D-Day—DD, Devil's Den—DEV, Diplomacy—DIP, Empires in Arms—EIA, Enemy in Sight—EIS, Firepower—FP, Flat Top—FT, Flight Leader, FL, Fortress Europa—FE, France 40—FR, Gettysburg—GE, Gladiator—GL, Guns of August—GOA, Hitler's War—HW, Kremlin—KREM, Kingmaker—KM, Knights of the Air—KOTA, Luftwaffe—LW, Magic Realm—MR, Merchant of Venus—MOV, Midway—MD, Naval War—NW, PanzerArmee Afrika—PAA, Panzerblitz—PB, PanzerGruppe Guderian—PGG, Panzerkrieg—PK, Panzer Leader—PL, Patton's Best—PAT, Platoon—PLA, Raid on St. Nazaire—RSN, Rail Baron—RB, Richthofen's War—RW, The Russian Campaign—TRC, Russian Front—RF, Stellar Conquest—SC, Squad Leader—SL, Storm Over Arnhem—SOA, Tac Air—TA, Tactics II—TAC, Third Reich—3R, Thunder at Cassino—CASS, Titan—TT, Up Front—UF, Victory In The Pacific—VITP, War and Peace—W&P, War At Sea—WAS, Waterloo—WAT, Wooden Ships & Iron Men—WSIM.

_____ _____ _____ _____

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_____ _____ _____ _____

NAME _____ **PHONE** _____

ADDRESS _____

CITY _____ **STATE** ____ **ZIP** _____

CONTEST #145

List the unit to act (and its initial hex location), and its movement or combat. If moving, the final hex occupied must be listed. If firing, the target and odds. If engaged in close combat, both movement and combat must be listed. If additional space is needed for your response, please append an extra sheet and follow the format below:

U.S. Unit/ Location	Hex Moved To:	Target Attacked & Odds:

Issue as a whole _____ (Rate from 1 to 10, with "1" equating excellent and "10" terrible). To be valid for consideration, your contest entry must also include the three best articles, in your view:
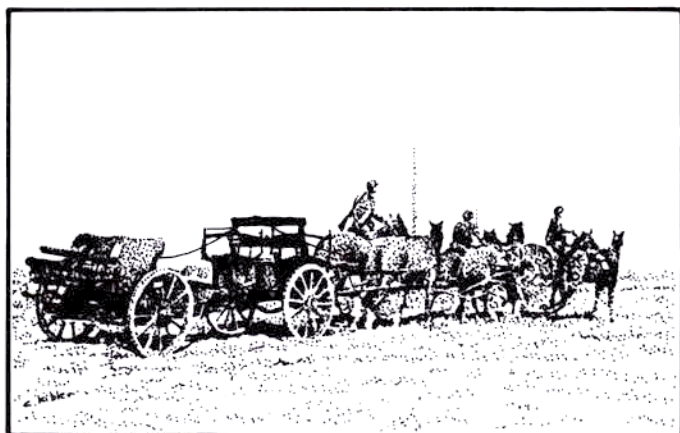
1. _____

2. _____

3. _____

NAME _____

ADDRESS _____

CITY _____ **STATE** _____ **ZIP** _____

BRING UP THE GUNS
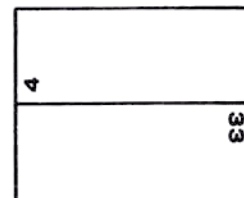
ASL SCENARIO G7

COEVORDEN, HOLLAND, 10 May 1940: The German 1st Cavalry Division, attached to the 18th Army, had taken up positions along the frontier of eastern Holland. The division's 1st Mounted Regiment had drawn the task of protecting the divisional artillery, and insuring that it rapidly reached a position from where its support could be called upon by all elements. The regimental commander, Lt.-Col. Wachsen, determined to crack through the 20-kilometer deep Dutch defensive belt at Coevorden, an important frontier post. The second squadron was given the task of silencing the rather large garrison of border guards stationed there. As soon as this was accomplished, the first batteries were to gallop forward onto enemy soil.

BOARD CONFIGURATION:

BALANCE:

▽ Shorten playing time to 6 Game Turns.

✚ Delete LMG from Dutch OB.

N ↑

4

33

VICTORY CONDITIONS: The Germans win immediately when they have Exited ≥ three wagons towing 75mm guns off the west edge of board(s) 4/33.

TURN RECORD CHART

▽ DUTCH Sets Up First	✚✚ 1	2	3	4	5	6	7	END
✚ GERMAN Moves First								

Frontier Guards [ELR: 2] set up within six hexes of 33R8, but not on/east-of hexrow Q: {SAN: 4}

4-5-7	8-1	8-0	LMG ☐ 2-6	Foxhole 5 1S OVR. OBA: +4 Other: +2	MPh/RtPh: dr = MF CC: +1/−1
8				2	8

Elements of 1st Mounted Regiment [ELR: 4] enter on Turn 1 on east edge: {SAN: 2}

4²-6-8	9-1	8-1	8-0	7-0	LMG ☐ 3-8	12
12					4	12

2nd Battery, 1st Mounted Regiment enters on any one turn on 33A6:

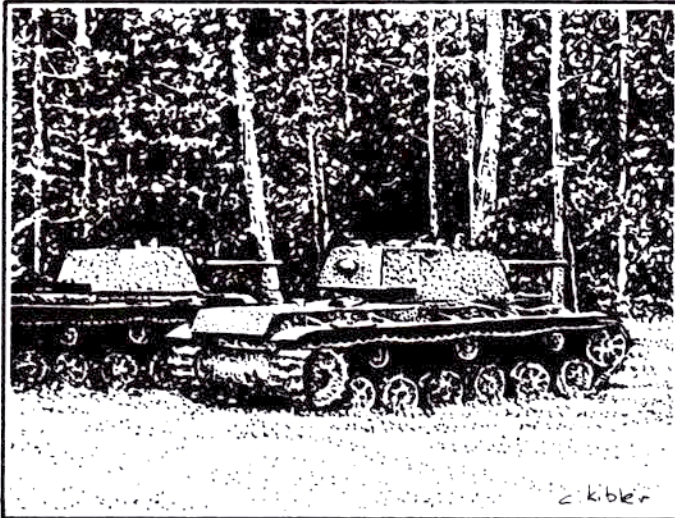| 8 ★ M≥6 1S/5PP cs3	ART M8 ☐ 75
5	5

SPECIAL RULES:

1. EC are Moderate, with no wind at start.

2. Wire may not be set up in Road hexes.

3. The German guns have no crews, nor may they be unlimbered or fired during play.

4. Due to the nature of the paved roads, a wagon towing a Gun expends only 1MF to enter a new hex by crossing a road hexside.

AFTERMATH: The troopers of the squadron, who had not seen action before but had a youthful sense of adventure, treated the attack as a mere exercise. Galloping forward, their initial rush was checked by a light scattering of fire from the Dutch border guards. Shocked at actually being fired upon, it took a few minutes for German NCOs to corral their charges and get them dismounted. Once in place, however, the cavalrymen made short work of the opposition and white flags broke out at the border post after only 15 minutes. Mounted up, the German troopers waved the artillery through and then followed after, leaving only a dozen wounded behind to guard the prisoners—whom no one seemed to want to take responsibility for. Within 30 minutes, the 1st Regiment had penetrated a full three kilometers into Dutch territory, often trotting over ground that would have been impassable to motor vehicles. By evening, the entire 1st Cavalry Division had reached all objectives; and after the first two days of the war, had covered 180 kilometers against disintegrating opposition.

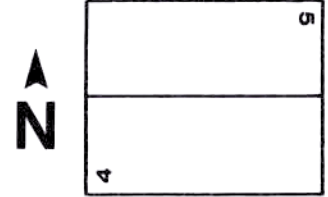# FIRST CRISIS AT ARMY GROUP NORTH

ASL Scenario M

Northeast of RASEINIAI, LITHUANIA, 25 June 1941: When Army Group North moved toward the River Daugava (renamed Dvina by the Soviets), the Russian command responded by detailing the 3rd Mechanized Corps to meet and destroy Manstein's units. On June 24th, the Soviet armored force made contact with the 6th Panzer Division, the spearhead of XLI Panzer Corps. Over a hundred of the Soviet tanks were the super-heavy KV models. The size and power of these stunned the panzer crews and baffled the AT gunners: neither seemed to posses a gun that could penetrate the armor of their opponents. The German advance was halted and the 6th Panzer Division cut off. The following day, the 1st Panzer Division was ordered to relieve and reinforce the 6th, while the Soviet force moved to continue its advance. These two efforts immediately collided.

BOARD CONFIGURATION:

BALANCE:

♣ The German 37mm AT may set up normally (ignore SSR 2).

★ Increase Game Length to 8 Turns.

VICTORY CONDITIONS: The Russians win immediately upon exiting three AFVs with functioning MA off the west edge of the mapboard.

TURN RECORD CHART

♣ GERMAN Sets Up First	★ ♣ 1	2	3	4	5	6	7	END
★ RUSSIAN Moves First								

Elements of Panzer Division 1 [ELR: 4] set up on/west of hexrow Q: {SAN: 3}

4   (see SSR 2)   2   2   3   2

Enter on Turn 1 on the west edge:

Elements of 2nd Tank Division [ELR: 3] enter on Turn 1 on the east edge: {SAN: 2}

7   3   2   2

SPECIAL RULES:

1. EC are Moderate, with no wind at start.

2. The German crew must set up loaded in a SPW 251/1, with the 37mm AT in tow.

3. No unit may use Road Bonus (B3.4) nor the half-MP road rate.

4. Bore Sighting is NA.

AFTERMATH: The Soviet heavy tanks outclassed the German defense and simply drove through the German units toward their objectives. The German armor commanders responded with careful maneuver and precision fire, turning their tanks around to follow the Russian advance while the infantry attempted to close assault the Russian behemoths. These tactics eliminated a few Russian vehicles, but the rest continued their steady advance until they ran into German AA and artillery positions in the rear. Unlike the AT and tank guns, these weapons had a fair chance of penetrating the thick armor of the Russian tanks. The Soviet advance ground to a halt. A rapid German counterattack threw the confused Russians back about two miles and ended the crisis.