Tobruk
Tank Battles in North Africa: 1942
THE AVALON HILL PHILOSOPHY

PART 50

The TOBRUK System

When PANZERBLITZ was released in 1970, everyone agreed that it was a different kind of game! It took quite a bit of getting used to. Once gamers became familiar with the system, however, it was quickly recognized as a landmark development. It is quite possible that TOBRUK will have the same impact.

TOBRUK is a different type of game. It is the most "tactical" land-warfare game Avalon Hill has ever published. Yet, it is very dissimilar to the man-to-man type games produced by other publishers. It is NOT a PANZERBLITZ in-the-desert. It is a completely new system. The rules are constructed in an innovative "Programmed Instruction" method which means that the rules are presented in discrete, self-contained modules. Each module is related to one of several scenarios. Players are instructed to read each module and play the accompanying scenario in strict consecutive order. In this way, players can absorb and become familiar with many complex rules without being overwhelmed by the totality of the rule book. When players have only read the first module to begin play, they can be involved in the first scenario 30 minutes after opening the box.

Besides being an innovative game on its own merits, TOBRUK attempts to bridge the gap between boardgamers and miniatures. This is not unusual since the first prototypes of TOBRUK were essentially miniatures rule books. The resemblance to miniatures will not be lost on those gamers familiar with both types of gaming.

Why is TOBRUK a new design system? Because the whole design approach is radically different from other games. This approach is essentially the same Operation Research and Statistical Analysis (ORSA) technique used by the Department of Defense and private defense contractors (Rand, etc). What makes it unique is that it is applied retroactively to a specific historic event. This is not so coincident-
al, since Hal Hock, the man who did the research and developed the basic game system, just happened to be making his living doing ORSA work for a private firm contracted to the DoD. Hal spent literally years gathering the data and creating the specific computer tools needed to synthesize the game's combat evaluation system. He approached this game design as if he was submitting it to the Army instead of to Avalon Hill. It is that precise and that accurate.

Right from the start, players will find TOBRUK a different sort of game. There is much less terrain than usual—in fact, there isn't any! Players create their own through the use of field emplacements. Scenarios are constructed with four or more units, and it is quite possible that the games go on half that long. There is much more dice rolling than most boardgamers are used to. In fact, the dice rolling is more reminiscent of TACTICS (a popular set of miniature rules) than PANZERBLITZ. But most players will find the four dice rolling 'blends into the background', becoming a necessary evil to allow the detailed game system to handle a wide variance in weapons performance.

TOBRUK is going to be a difficult game for players to master. It is a complex tactical system that is increasingly faithful in technical aspects to the historical period it covers. In short, TOBRUK is engrossing—a rare adjective in this day mass produced, one-shot games.

THE TOBRUK MARKETING APPROACH

TOBRUK is being marketed in a radically different manner than past Avalon Hill games. Basically, the game is being released in two stages. The first stage is a limited PRE-PUBLICATION release which is being offered only to GENERAL subscribers and attendees at ORIGINS. Included in this will be a special limited run of 500 games which will be numbered and signed by the designers to appeal to the serious game collectors. In the fall, the game will be officially released in the mail order line. Hopefully, this edition will include rule revisions, expanded Designer's Notes material (some of which appears in this issue) and new experimental rules. Owners of the pre-publication edition can update their game by simply exchanging their old rules booklets for an updated edition of the rule book. Why do we bother with the added expense and time requirements for updating? Because the system is simply that good and that important.

We realize that we are opening ourselves to the criticism that people purchasing the pre-publication edition are buying a 'half-finished' game. To this we answer a resounding "no"! What they are buying is a unique collector's item with a built-in, guaranteed modernization mechanism. We could have waited until the fall to release this title. But then, there would have been no collector's edition and no immediate updating system. The whole approach is new, different, and hopefully quite popular. The 500 autographed copies sold out within a week of mailing! Vol. 12, No. 1 of the GENERAL: We aren't content to stand pat on the same old tried-and-true design and marketing methods. Judging from the response to the TOBRUK special offer you aren't either.

READERS RESPONSE

The Readers Response in the last issue resulted in some interesting figures which will be taken under advisement in considering future potential subscriptions. These can render valuable feedback to GENERAL readers. Only 38% of our sample have ever played wargames with miniatures. However, 83% expressed an interest in providing them with a series of introductory miniatures rule booklets. Of those who have played miniatures, 60% said that an interest in an AH line of miniatures rule books. 66% were interested in buying reduced 8" x 10" hex sheets. A resounding 80% were in favor of a

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TOBRUK North Africa: 1942

(The story of the war in the North African desert between 1940 and 1943 is incredibly long and complex and because of this, many books and articles are available to describe it. This summary will therefore ignore the maneuvers of the British and Axis forces which led them to their positions of May 26, 1942 and concentrate on the specific events of the next four weeks; the Battle of Gazala.)

Gazala? Who has ever really heard of the Battle of Gazala besides those who have run across it in general reading or in looking for accounts of the Battle of El Alamein? It can safely be said that, of all of the battles of World War II, few have been so poorly appreciated in importance as has been this one. The battle itself is not well recorded in the histories and its immense and far-reaching impact on the desert war in general and especially the Battle of El Alamein three months later (Alam Halfa ridge) is almost never properly written into the accounts. By some, the Battle of Gazala, and not the Battle of El Alamein, is regarded as the most important single large engagement of the desert war.

The reasons for this are many, but primarily consist of three. First, the Battle of Gazala without a doubt was the most brilliant victory of Erwin Rommel’s career, although in achieving it he made some of his most remarkable blunders. It was upon this victory that Rommel was promoted to the rank of Field Marshal, one of the youngest men (49) ever to reach this grade in the history of the German army. Never before the battle or after was Rommel held in such regard by the German and Italian General Staffs, Hitler, and begrudgingly, the British most notably in the form of Winston Churchill.

Second, without the occurrence of this immense victory precisely at this time and in this manner, the German High Command almost certainly would have successfully launched and completed the planned Operation Herkules, the sea and airborne invasion of Malta. As it was, the collapse of the Eighth Army on the Gazala Line and the subsequent catastrophic fall of the strategic port of Tobruk and the capture of its huge garrison was enough to influence Hitler to allow Rommel to push into Egypt in hopes of a quick seizure of the Suez Canal. For this purpose, Herkules was postponed and the troops and supplies intended for use in the operation sent to Rommel’s army instead. Malta remained unattacked except by air and served as both the staging area for the British El Alamein buildup and the key Royal Navy port from where submarine and surface units could control the Mediterranean and efficiently strangle the Afrika Korps by sinking its supply ships sailing from Italy. The decision by Hitler for the postponement and subsequent abandonment of Herkules would not have been made without the Gazala victories, and it was one of the most serious strategic mistakes of the war.

Finally, the collapse of the Gazala Line and Tobruk’s fall shook the entire British Empire as nothing had since Dunkirk. Churchill himself was shocked as severely as when the Japanese had sunk the battleship Prince of Wales and Repulse at the beginning of the war. He received the news from the hand of President Roosevelt, while meeting with him in Washington, and his first action was to ask Roosevelt directly for the Lend-Lease of 300 of the new Sherman tanks which were intended for equipping the American 1st Armored Division. Roosevelt’s immediate answer was yes, and upon that answer the fate of the El Alamein battle was essentially sealed because in addition to the 300 Sherman tanks which far outclassed all but a few Axis vehicles, 100 self-propelled guns and massive stocks of assorted other materials were shipped to the British without delay. No other single factor was more responsible for the rapid rebuilding of the Eighth Army than this, and with the new Shermans absolutely dominating the battlefield, Rommel’s attempts to break through the El Alamein Line three months later became in his own words, a “battle without hope.” An Axis loss at Gazala, or even a less spectacular victory might well have not produced the same response and the history of the desert way may have unfolded in a considerably different way. For these reasons, then, the Battle of Gazala was of overwhelming importance in changing the course of the desert war.

The Gazala Battles officially began in mid-afternoon of the 26th of May, 1942, when large elements of Italian and German infantry with heavy artillery support assaulted the South African positions on the Gazala Line. (Scenario two in the game is based upon this action.) To understand this or any of the other portions of the battle, however, it is necessary to have a limited understanding of the reasons why the Gazala Line was built by the British in the first place and how the Germans came to attack it.

The Line was established in the period between the retreat of the Eighth Army under German pressure out of the area of Libya known as Cyrenaica (see map) and the beginning of operations in May. It was not designed to be a truly effective defensive line from the outset, but rather an impenetrable shield behind which divisions could be assembled for an offensive unimpeded by the Axis. This buildup necessitated the establishment of huge forward supply dumps immediately behind the line itself and throughout the battle the British were restrained in action partially because of worry that these stores would be captured by the Germans, an idea which as it turns out was indeed part of Rommel’s plan.

The line ran from Gazala and the coastline on the north almost straight south to Bir Hacheim for a distance of over 40 miles. It was manned by two Commonwealth divisions, the 1st South African and the British 50th, whose six brigades were disposed in what came to be known as “boxes” or defensive positions which could be defended from any direction. One additional brigade, the First Free French, was located at the line anchor point at Bir Hacheim in a defensive box of such complexity that the position was almost impregnable. Behind the line were scattered various reserve forces mostly in boxes and two full armored divisions and two armored brigades together containing nearly seven hundred tanks, 167 of which were the newly-arrived American Lend-Lease Grant’s which were far superior to any Axis vehicle at the start of the engagement. In the Tobruk fortress itself was another full division, the Second South African reinforced by one more brigade.
The boxes of the line were marvellous of defensive ingenuity and such a departure from normal British defensive policy that field officers from all fronts travelled to Gazala to inspect them. They were surrounded by dense minefields and controlled by a mine and anti-tank minefield of complex nature (over one-half million mines) that the area to this day has never fully been cleared and has killed or maimed thousands of Arabs since the end of the war. Unfortunately, however, portions of this huge screen top were to attack British armor behind the line. For example, no thought was given to the fact that one division in the south had breached the “mine marsh” and that one division in the north part of the line. To make matters worse, Rommel had fooled no one and the sweep by night was no surprise. But the British Command for some reason did not react to this threat. Knowing the thoughts were not on the German Intelligence of these facts, he would have prepared for a harder fight and planned accordingly. As it was, the strength and fighting ability of especially the British armored units surprised and shocked him and his army.

Battered but not slowed the mass of German armor now continued to drive north. By mistake the Trieste division had been left out of the battle. But the British armor behind the line was nowhere near as strong as the German. Intelligence of these facts, he would have prepared for a harder fight and planned accordingly. As it was, the strength and fighting ability of especially the British armored units surprised and shocked him and his army.

Rommel, however, was not aware of this last fact and on the next day, the 28th, he ordered the 21st Panzer division to continue to push north which they did and reached the coast. Being so strung out like this he could launch his forces on the Axis group would have been slowly destroyed, but on the next day, the 20th, Rommel finally properly perceived the situation and, unimpeded by the British, gathered the 21st Panzer, 15th Panzer, Ninth Light and Ariete divisions together in the area which soon was known as the Cauldron because of the boiling Axis activity inside of it. The Trieste division in the south had breached the “mine marsh” north of Bir Hacheim in an area unprotected by fire, and at this route they should reach Rommel via this route. For full supply of the division as a group, however, a more direct and wider channel needed to be used and this could have been done had the minefield that was Thrace itself falling four days later.

By anybody’s appreciation, the plan was, on the whole, brash to the point of being reckless and seriously weak in key areas. For example, no thought was given to the possibility that the British armor might not be destroyed on the 27th in which case the strike force would be stuck behind the line living off a 100 mile supply link. No thought seemed to be given to the fact either that the Free French might resist the attack of the one Italian division (the Trieste) assigned to take Bir Hacheim and in a position to cut this supply line. In the battle, both of these unforeseen events did indeed come about.

The frontal feint attack by Group Crüwell began on schedule at about 2 P.M. on the 26th (Scenario 2) and seven hours later the big sweep was initiated. Over 10,000 vehicles began to drive south and their progress was reported to the British every mile of the way by the efficient “eyes” of the South African Armoured Corps. The feint had fooled no one and the sweep by night was no surprise. But the British Command for some reason did not react to this threat. Knowing the thoughts were not on the German Intelligence of these facts, he would have prepared for a harder fight and planned accordingly. As it was, the strength and fighting ability of especially the British armored units surprised and shocked him and his army.

Rommel now (11 June) pushed out of the Cauldron area toward the prize of El Adem with all three German divisions plus Ariete at significant strength. The British resistance was considerable and captured by the German forces on the 11th and that night the advance stopped with the German and Italian divisions separated. Thinking this to be an opportunity to attack the German divisions at least 21st Panzer, the British planned an assault against the 15th Panzer to begin on the 12th and to use two fairly strong armored brigades, the Second and the Fourth in the attack.

The battle began as expected but when assembled in the jump-off area at Bir Lefra, the two brigades stopped and waited for orders from their divisional commanders, General Reinefarth and General Drautz. The former who driver the cruiser (a “b”) after being almost captured by Germans. This wait was fatal, because Rommel seeing both units immobile with the 15th Panzer to their south and the 21st Panzer to their west, ordered both divisions to attack immediately.

The subsequent冲锋 of the two brigades (Scenario 7) was the most decisive defeat suffered by the British up until this time and accomplished what Rommel had intended to accomplish 16 days earlier, the elimination of most of the British armor from the field.

Little need be said about the rest of the campaign. The German and Italian divisions had once again been worn down. The last stage of Desert Fox was fought for and against a two day period. He might not have been so cautious, for the fortress was not in this case held by tough confident Australian troops, but by unexperienced South African and Indian troops who had just witnessed the complete collapse of their army and were naturally very shaken.

The attack was launched at dawn on the 20th of June (Scenario 9) in the best of Blitzkrieg traditions. The fortress was surrendered unconditionally before dawn and the next day yielded the biggest bag of booty that had ever been won in the desert by either side.

Characteristically, Rommel’s thoughts were not on Tobruk at all but rather down the coast to Alexandria and the Suez Canal—at El Alamein.

References:
1. Metals Under Impressive Loads
2. The Effect of System Design Characteristics on First Round Hitting Probability of Tank Firepoint, 6RL Memorandum Report
5. “AFV 11, M3 Medium (Lee/Grant)”, Profile Publications
6. “AFV 6, Valentine Mark III”, Profile Publications
7. “AFV 7, Sherman, Mark V, Mark 6, Mark 7, Mark 8”, Profile Publications
8. “AFV 1, Panzerkampfwagen IV”, Profile Publications
10. “Armor in Profile, No. 8, Panzerkampfwagen IV”, Profile Publications
13. Tank Data, WE Inc. publishers
14. Kampfpanzer 1916-1945, Dr. F. M. Von Senger and Erlten author
17. German Tanks 1923-1945, Senger and Erlten author
20. German Infantry Weapons of WWII, Barker author
22. War as a Profession, Korsh author
23. Weapons and Tactics, Hastings to Berlin, Weller author
24. The Rommel Papers, Liddell Hart editor

For those interested in the design of Tobruk, the following references are provided. For all players a small selection of books can make the Gazala Battles and the desert war very clear through reading. They are:

Rommel by Desmond Young
Rommel as a Military Commander by Ronald Lewin
Tobruk, the Story of a Siege by Anthony Heck-stall Smith
The Sinai Desert Battles and Crisis in the Desert by J. A. I. Agar-Hamilton and L. C. F. Tucker

**Designer’s Notes**

**Weapons Effectiveness**

Three guidelines influenced the design of Tobruk and were adhered to in each stage of the game’s development. The first and foremost was the requirement that the effectiveness and peculiarities of weapons were to be emphasized in the game rather than operations and tactics as had been stressed in previous wargames. Weapons effectiveness analysis was to be conducted in a manner which was much more complete than in other games, and this analysis was to be reduced to a workable, playable methodology using the best possible tools to include the digital computer. Fortunately, procedures and data were uncovered during the research for Tobruk which made the fulfillment of this guideline possible, and these procedures and data will be discussed further on.

Second, it was planned that no data or methodology used in the game’s design was to be so complex or difficult to find that the average gamer playing the game could not understand it and perform his own weapons analysis or historical comparison should that be his desire. In general, this requirement was satisfied and most of the design materials listed throughout this booklet should be available to any player, although he may have to go to some effort such as requesting Inter-Library Loan or similar procedure to obtain them. Such materials, however, such as very old pre-WWII artillery firing tables, etc., are of such a rare nature as to be unavailable without considerable research and where this has been the case, and the data extracted from these sources judged to be of enough importance to anyone wishing to investigate the Tobruk design process, the data has been enclosed where appropriate.

An interesting sidenote is in order here. In doing the massive research for proper weapons effectiveness analysis, it was discovered that some detailed data items about many of the weapons were still officially classified and therefore, of course, unusable in the game. There were two reasons for this, the first being that many materials just had simply been overlooked when downwarding became justifiable and the second that, oddly enough, many of the British and Axis weapons involved in the Gazala Battles are still in use throughout the world today. When absolutely required for a given weapon, such data items were estimated based on unclassified data from similar weapons.

The third and final guideline was that of giving the defender the advantage in any doubtful battle resolution. This guideline was strictly adhered to whenever any uncertainty existed. For example, most weapons in the game have much higher possible rates of fire than are represented and used in the effectiveness analysis. The problem is that these higher rates can only be used under very special circumstances which give the defender the advantage of the doubt, were assumed to be ignorable except in certain identifiable cases (such as final defensive fires, barражes, etc.). The point is clear that on a battlefield such factors as confusion, obfuscation and less than perfect knowledge of the enemy all work in the defender’s behalf but can’t be easily modelled in a game. This guideline simply reduces the effect of such uncontrollable factors.

Under these three guidelines, the weapons’ effectiveness analyses of Tobruk were conducted in the following ways.

**A. Anti-armor weapons**

The defeat of an enemy armored target by direct-fire is a problem of the foremost magnitude. The question “Will this projectile defeat this target at this range?” may at first seem to be rather simple to answer by just comparing projectile penetration to armor thickness and making a yes or no decision based on that. In actuality, however, the problems involved are so complicated that, even at today’s state of ballistics and metallurgy, the only sure way of answering the question is by taking the target out and shooting at it with the weapon of interest. Reference 1 discusses these problems in some detail but obviously for use in Tobruk the solution just mentioned was impractical and assumptions and approximations had to be made.

In general, the entire problem could be boiled down into three questions as related in the rules:

1. Has the target been hit?
2. Where has the target been hit?
3. What has hit done to the target?

Reference 2 gives a detailed and very satisfactory method for answering the first question provided some data about the firing weapon is known. In general, “quasi-battle”

conditions are assumed existing on the field with projectile shape, stability, and especially muzzle velocity determining whether or not a given target is hit at a given range. For each weapon used in Tobruk, these parameters were either found in references listed later or could be safely assumed, and probability of hit curves such as the example below could be generated for each and converted into dice rolls for use in the Hit Probability Tables.

**Question 2** could in a similar way be answered by making a few assumptions about all targets and then a detailed analysis of each. The general assumptions were:

- a) The aimpoint on each target was roughly in the center of the target.
- b) The only areas on the target which could be hit were the areas facing towards the firing weapon. For example, this is scored on the side plates of a target which by definition is facing the weapon with its front and so on.
- c) The hits scored on the target are divided according to the amount of area each portion of the target presents to the firing weapon.

With these assumptions, the projected areas of each target were analyzed using references 3 through 13 and Area Impacted tables built for AFV.

Finally, the incredibly complicated problem of question 3, whether or not the target was damaged if hit, had to be addressed. First and foremost, range dependent armor penetration data for each weapon of interest had to be gathered and from among literally dozens of sources, the data of reference 14 through 18 was accepted for initial use. Second, armor specifications for each possible target had to be obtained and vulnerable areas of each target were extracted with this basic mass of data the following step by step procedure was followed to determine the results of each possible projectile/area impacted combination in the game. With only five British and six Axis target AFVs by this method, this meant 184 separate and distinct evaluations had to be performed.

**Step 1:** Armor “penetration” data is usually based on static firings of weapons against armor plates of average quality which, in the jargon of metallurgy is called homogeneous armor. Performance of the same plate is a considerably harder task, however, and what this basic perforation capability of the projectile against homogeneous armor had to be calculated.

**Step 2:** All DD IV, Pz IV, and Stuart tanks in the game were protected in certain vital areas by armor of considerably different characteristics than that of homogeneous armor by virtue of being hardened to resist attack. The effect of this hardening had to be considered inasmuch as it could either add to or subtract from the vehicle’s protection depending upon the size of the impacting projectile.

**Step 3:** All armor plates, whether homogeneous or hardened, protect the vehicle by different amounts depending upon their sloping with respect to the attacking projectile. This sloping is not simply the slope of the plate with respect to vertical, but is also the extra slope of the plate in the ground plane and neither effect can be ignored. This is such a complex problem that an illustration is in order for better understanding. Assume we have an armor plate of some thickness being fired at:

and which can be pierced when vertical.

Sloping of that plate may cause the attacking projectile to either miss or even shatter depending upon the projectile type and the hardness of the plate.

But the sloping “bonus” enjoyed by the plate must be evaluated taking into account that, mathematically, the probability of the plate lying exactly perpendicular to the line of fire as shown below (from the top):

is exactly zero. In other words, in any actual battlefield condition the plate will probably lie at some angle to the line of fire such as illustrated below:

Assuming the ground is perfectly flat (not a bad assumption in the desert) and assuming a straight-line projectile flight to the target plate (a bad assumption anywhere but one which gives the defender the advantage), it can be safely assumed that the plate’s vertical slope is constant. The horizontal slope, however, definitely varies as the target engaged from the “front” to the “side” to the “flank” and the target’s angle of attack can take into account that, mathematically, the horizontal slope bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious problem arises, however, in trying to account for the sloping plates in this case are not counted, but that 0 degree—30 degree bonus to the receiving plate cannot be ignored. This is such a serious
a probabilistic way, and to do in such a way as to not encumber the play of the game with for example another dice roll. Needless to say, after much effort such a method was discovered and the IMPACT computer program was written to implement it. While not going into any details of the IMPACT procedures, be it enough to say that all important effects, such as plate hardness and projectile type, were analyzed, and the result was such that this probabilistic horizontal sloping bonus was amalgamated into the Area Impacted Table for each AFV target. This means, for instance, that say 1/3 of a target's total frontal aspect was composed of its front lower hull plate which would be represented out of 36 (the maximum number of different results of rolling two dice) "Front Lower Hull" hits on its Area Impacted Table. With the board of this target's random facing factored in by the use of IMPACT, these 12 hits might be reduced to perhaps 8, with the other four being defined as ricochets caused by the target's facing at some angle.

This is not a perfect solution, obviously, but it at least accounts for the problem to some extent and certainly enough for a commercial wargame such as Tobruk. Even the partial solution as just described (briefly by the way) has a terrific impact on the play of the game. Just notice how difficult it is to get a hit "stick" to the front of a Pz.III Special and this should become apparent.

Step 4. Once a projectile is defined as having hit a target and not ricocheted, it must be determined whether or not the projectile (or its fragments if shattered) has pierced the plate and what damage was done. An almost straight comparison of piercing power vs. armor effective thickness may be made to answer the first part, and an analysis of target internal layout and projectile design can answer the second. One example of this process should be sufficient to illustrate.

Suppose at a range of 6 hexes a Pz.III Special using the 50mm long weapon had scored a Front Lower Hull hit on a Honey tank. A quick computation of the effective armor thickness of the Honey at this point (70mm) and the armor piercing ability of the 50mm long APCBC (normal armor-piercing ammunition) at this range (71mm) shows that indeed the round has gotten into the Honey. At this spot in the tank, however, is located the transmission and final drive mechanisms behind which sit the driver and hull machine gunner. Since the round has barely managed to break through this plate in front of the final drive assembly, it simply doesn't have enough remaining momentum (kinetic energy) to continue through the assembly itself and kill or injure one or both of these two crewmen and so they can be considered safe. However, the mechanisms of the assembly most certainly will have been damaged by the round itself or the fragments of the armor plate which it probably blew into the assembly upon entry, and so the mobility of the vehicle has probably been destroyed and thus, an "M" kill scored. Finally, the 50mm APCBC round, like most German and Italian ammunition, is very clean and dusty. It is very easy to detect after piercing into a target and, in this case, the portion of target entered happens to contain inflammable fluids. The combination of these factors produces a high probability of fire, and thus the "(F)" result as well.

All of this, and one (MP49/50) is placed on the Honey sheet with 1283 additional evaluations, some trivial, some very complex, needed to be done for analyzing the AFV's involved in the game and references 18, 19, and 23 provided the basic numbers and types of weapons used by the personnel units of each side. When combined, a firepower value in the form of Gunfire Factors for each personnel unit at all possible ranges was calculated for each unit. Further elaborating will not be done here but if interested, a player may refer to the above references, especially number 22, (although erroneous in spots) for more details of this process and data.

C. Artillery and Mortar Weapons

The evaluation of the effectiveness of these weapons is strongly affected by the ground cover factors not required in the evaluation of the previous two types. These assumptions are very broad, but not unreasonable for a board wargame. Briefly, they are:

1. Any artillery (including direct-fire) or mortar weapon can be assumed to have associated with it a "CEP", or Circular Error Probable, figure which very simply represents the radius of a circle centered at the target within which 50% of the ammunition fired by that target will impact. This CEP is of course range dependent; the closer to the target that the firing weapon is, the smaller the CEP will become, although for some technical reasons, it will never reach zero (perfect accuracy).

2. Any target may be approximated by a circle on the ground of some radius RT. As an example, a tank may be approximated by such a circle:

as can a section of infantry:

and so on.

3. Any round that is an Italian 81mm mortar round for example may have associated with it some "lethal radius" (RL) within which a target may be damaged or destroyed. For example, the 81mm round just mentioned may be described as having an RL against an infantry target of 7.0 meters, within which any man target will probably be killed or seriously wounded by the fragiments or blast from the exploding round. Against a tank target, for example, this RL for damaging or destroying the tank will obviously be considerably less.

Rumors of a target and thus the effectiveness of fires against various targets may be analyzed. The equations for this analysis are common in use throughout the military Operational Research community and will not be referenced here; although most OR textbooks and references 13 through 15 list these specific techniques in detail but a short list of the most important items will be presented here for completeness.

1. British:

Nomenclature: U.S. 53 Light tank "Honey" or

Weight: 13 tons

Maximum road speed: 36 mph

Flank speed: 22 mph

Maximum armor: 88mm

Crew: 4

Weapons: 1 37mm M6, 2 20 cal Browning MG's

Use in Gaszala Battles: On batteries as tank destroyer

Comments: Light, fast and reliable vehicle. Not well suited to the role of battle tank but used as one anyway. Surprisingly good armor for light vehicle, very accurate main gun. Two man turret was a slight liability.

Nomenclature: Cruiser Mk II, Crusader II

Weight: 19 tons

Maximum road speed: 22 mph

Flank speed: 12 mph

Maximum armor: 5-3 man turret

Crew: 4

Weapons: 1 2 pounder, 2 20mm gun

Use in Gaszala Battles: On batteries as tank destroyer

Comments: Very unreliable vehicle with a weapon not even to any one on the field. Disliked by its crews and not feared by the enemy. Very combustible when hit. Poorly arranged armor which good speed could overcome, closer support (C.S.) version had 3rd howitzer mainly for firing smoke.

THE GENERAL

A. BOARD

The board chosen for use with Tobruk requires little comment because there is little to it. The 75 meter hex was chosen to allow for reasonable maneuver on the board while prohibiting the longest-range weapons, such as the 88mm FLAK, from completely commanding an engagement. In addition, the CEPS of all other weapons were used in the game as such that a 75 meter hex will probably receive most of its fire and rounds falling in adjacent hexes may be ignored. There is no terrain of any kind on the board for two reasons. First, the actual terrain upon which most of the Gazala battles were fought is indeed very flat and featureless. Any "terrain" protection desired by the combatants in general had to be provided by their peoples through entrenchments and concealment. Second and most important, though, it was discovered through play-test of Tobruk predecessors that almost any terrain feature of any kind on a battlefield of this size (about 2 miles by 3 miles) absolutely dominates in the play and the individual weapon rates of fire which will be related later. Due rates of ammunition were also considered, and surprisingly enough found to be significant.

Systems Specifics

B. VEHICULAR UNITS

Each vehicle type used by either side during the Gazala Battles was very unique in performance and peculiarities. References 3 through 13 list these specific details in detail but a short list of the most important items will be presented here for completeness.

1. British:

Nomenclature: U.S. 53 Light tank "Honey" or

Weight: 13 tons

Maximum road speed: 36 mph

Flank speed: 22 mph

Maximum armor: 88mm

Crew: 4

Weapons: 1 37mm M6, 2 20 cal Browning MG's

Use in Gaszala Battles: On batteries as tank destroyer

Comments: Light, fast and reliable vehicle. Not well suited to the role of battle tank but used as one anyway. Surprisingly good armor for light vehicle, very accurate main gun. Two man turret was a slight liability.
### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
- **Dicker Max 75/18, Semovente**: 
- **Spz. Flak 38, Artillery**: 
- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
- **Dicker Max 75/18, Semovente**: 
- **Spz. Flak 38, Artillery**: 
- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
- **Dicker Max 75/18, Semovente**: 
- **Spz. Flak 38, Artillery**: 
- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
- **Dicker Max 75/18, Semovente**: 
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- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
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- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
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- **Spz. Flak 38, Artillery**: 
- **Spz. Artillerie, Model Pz 38**: 

### Nomenclature
- **Weight**: 
- **Maximum road speed**: 
- **Flat desert speed**: 
- **Maximum armor**: 
- **Crew**: 
- **Weapons and Use in Gazala Battles**

### Comments
- **Infantry Tank Mk II, Matilda II**: 
- **Panzerkampfwagen III, Model H**: 
- **Panzerkampfwagen III, Model J**: 
- **Dicker Max 75/18, Semovente**: 
- **Spz. Flak 38, Artillery**: 
- **Spz. Artillerie, Model Pz 38**: 

### C. Weapon Units

Even though weapons are identified as being used by one side or the other, it must be stressed that both sides in the desert made extensive use of captured weapons whenever possible. The reason for this was that, unlike AVPs, weapons in general required no special supplies of spare parts or maintenance equipment to be kept in operation and can be set up and used with far less training than in the case of an AVF. The following lists the most important data for each weapon type used in the game by either side:

#### 1. British

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (indirect fire)</th>
<th>Rate of fire</th>
<th>Ammunition dual rate</th>
<th>HE round lethal radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muzzle Loading Mortar, 2&quot;</td>
<td>10 lb.</td>
<td>1-man</td>
<td>HE</td>
<td>40-20 meters</td>
<td>12 rpm</td>
<td>1.6 meter</td>
<td>Standard British light mortar. Still in use after Keren War and highly prized by British infantry.</td>
</tr>
<tr>
<td>Medium Mortar, 3&quot;</td>
<td>126 lb.</td>
<td>6-man</td>
<td>HE, smoke</td>
<td>8-33 meters</td>
<td>10 rpm</td>
<td>7.1 meters</td>
<td>Standard British medium mortar still in use although modified. Suffered from short range in desert and, like all British mortars, from small lethal radius of fragmentation due to use of poor grade metals in shells.</td>
</tr>
</tbody>
</table>

#### 2. German

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (indirect fire)</th>
<th>Rate of fire</th>
<th>Ammunition dual rate</th>
<th>HE round lethal radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vickers MG</td>
<td>303 Vickers Medium Machine-gun</td>
<td>42 lb.</td>
<td>6-mm</td>
<td>Ball, tracer</td>
<td>500 rpm (cyclic)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M2 Machine Gun</td>
<td>1.3 tons</td>
<td>7-man</td>
<td>Armor piercing incendiary</td>
<td>15 rpm</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>.30 Caliber</td>
<td>36 lb.</td>
<td>1-man</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8 mm Hotchkiss</td>
<td>1.65 tons</td>
<td>6-man</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>HE, smoke, AP</td>
<td>22 meters</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>-</td>
<td>12 rpm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>-</td>
<td>30 meters</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>-</td>
<td>12 meters</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12.7 mm Hotchkiss</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Page 7
### 4.5 inch Gun

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.5 tons</td>
<td>2-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45 pounds</td>
<td>2 rpm</td>
<td>10.0 rpm</td>
<td>Standard British medium piece in service at Maza. Long range and good accuracy at range made piece very effective and well respected.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.97 meters</td>
<td>Standard U.S. medium howitzer still in use today. Used in conjunction with 4.5 inch gun by British in medium batteries at Maza.</td>
</tr>
</tbody>
</table>

### 155mm Howitzer

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. 155mm Howitzer M1</td>
<td>6.3 tons</td>
<td>9-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45 pounds</td>
<td>2 rpm</td>
<td>10.0 rpm</td>
<td>Standard U.S. howitzer still in use today. Used in conjunction with 4.5 inch gun by British in medium batteries at Maza.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.97 meters</td>
<td>Standard German medium howitzer.</td>
</tr>
</tbody>
</table>

### 150mm Gun

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.8 tons</td>
<td>8-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45 pounds</td>
<td>2 rpm</td>
<td>10.0 rpm</td>
<td>Standard German medium howitzer.</td>
</tr>
</tbody>
</table>

### The General

**105mm Howitzer**

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.0 cm. L.F.H. 19 (105mm howitzer)</td>
<td>6-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
</tbody>
</table>

**150mm Gun**

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.0 cm. K18 (150mm gun)</td>
<td>6-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
</tbody>
</table>

**3. The Italians**

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45mm M35 Bravia (45mm mortar)</td>
<td>2-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
</tbody>
</table>

**4. The Soviets**

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Weight in action</th>
<th>Crew</th>
<th>Ammunition generally used</th>
<th>CEP (Indirect fire)</th>
<th>Rate of Fire</th>
<th>Ammunition duardin HE round length radius comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45mm M35 Bravia (45mm mortar)</td>
<td>2-m</td>
<td>HE, smoke</td>
<td>2.8 meters</td>
<td>28 rpm</td>
<td>17 meters</td>
</tr>
</tbody>
</table>
The Stuka dive-bomber is as infamous as probably any other weapon of war before or since. In the minds of German tactic planners such as Rommel, however, the Stuka was not regarded as being decisive nor, for that matter, even remarkably effective except for the relatively clearly defined tactical role—that of the "heavy artillery"—of the mobile divisions. In this role it indeed excelled, and as such was a crucial part of the concept of the Blitzkrieg or lightning war about which so much has been written.

In the desert, however, the Stukas really weren't all that useful simply due to the lack of suitable targets for them except in rare cases. It's somewhat wasteful to use an 1100 pound (500kg) bomb against a target that one anti-tank projectile could destroy. Nevertheless, the Stukas were invariably used by the Germans, however they saw them also, incidentally whenever the proper opportunity arose, such as when attacking Bir Hacheim or the Tobruk perimeter and whenever "heavy artillery" was needed.

In the game, the Stukas used are assumed to carry only one of several possible bombloads and their use for ground strafing is not allowed. They are assumed to be always "on call" (Luftwaffe officers were usually attached to ground units like FOGs) and are assumed to bomb in the following way:

1. U252
2. U252
3. U252
4. U252
5. U252
6. U252
7. U252

which produces a CEP of 33 meters for the large bomb and 35 meters for each of the small ones. Their lethal radii against personnel are 36 meters and 23 meters respectively.

E. Personnel Units

All personnel units in Tobruk are different in composition, both in men and in weapons. In general, these compositions may be found in our sources to be referenced later, but it must be remembered that on the field in the real battle standardization rarely existed. Losses from engagement to engagement could almost never be fully replaced and as the campaign progressed personnel units of all types would change as to the weapon that was carried by individuals in the units. For example, German infantry sections would grab up as many extra MG34 light machine guns as became available as the battle wore on and so forth. In the game, however, no easy way existed to model such improvisation and so every personnel unit is assumed to be as described in the organization tables or "TO&Es".

The basic Tobruk personnel unit is, of course, the infantry section from which all larger units are built. The largest echelon which can be reached by either side in the game is a company, but a full-strength company might represent in the later stages of the battle a unit of battalion strength or even larger. If desired, additional Tobruk counter sets may be added together on the board to form larger standard units than one company, but in the desert a battlefield of the board size (about 2 miles by 3 miles) was large enough and 144 such units could be used up. In the game, however, no easy way existed to model such improvisation and so every personnel unit is assumed to be as described in the organization tables or "TO&Es".

The companies on each side are represented in numbers of men and sub-unit composition on their respective roster charts, but some comments are in order as to the weapons and any special characteristics of each as used in the game.

1. British—The British desert infantry section contained 10 men composed of one non-commissioned officer (NCO) armed with an American Thompson sub-machinegun, two supporting .303 cal. Enfield bolt-action rifles and seven machine-guns. As usual a platoon leader had a MG34 light machine gun and a 45-millimeter 60-pound (27kg) anti-tank rifle. A non-commissioned officer who was armed with the excellent Mauser Carcano 9mm Mauser sub-machinegun-a weapon so lethal that virtually every modern day general purpose machinegun (like the US M60) is designed directly or indirectly from it. In the game, it is the MG34 alone which is responsible for the massive German section fire power. Two men are assumed to operate it with the rest of the section being armed with the 1.92mm Mauser QF.40 rifle with the squad leader carrying a MP40 sub-machinegun, but these weapons contribute very little to the section's effectiveness with the respect to the MG34. Note that with only one man remaining in the section, a fairly impressive fire power can still be placed on a target because it is assumed that he will always pick up the MG34 and use it instead of his own weapon.

As in the case of the British, a platoon is composed of three such sections with an 8 man platoon headquarters section and a 2 man HQ group. Unlike the British platoon however, no light mortars or anti-tank rifle was directly controlled by the German platoon, rather three light mortars and three ATR's were carried by 9 man sections as company headquarters where one additional 10 man section was included. Note also that in this, the early part of the war, the German company was composed of four and not three platoons as were the British and Italian companies. Every German soldier is assumed to carry the standard stick grenade but again, no special equipment. Reference 18 contains completed data on the organization and weapons of the German company and higher echelons.

3. Italian—The Italian infantry section differed significantly from its British and German counterparts inasmuch as it was composed of 20 men and broken into two functional groups—a light machinegun group of 9 men and a rifle group of 11 men. Two standard 6.5mm M303 Breda light machineguns plus rifles were carried by the first group and the standard 6.5mm M91 Mannlicher-Carcano by the second. Both groups were headed by an NCO who was usually armed with the excellent M88 Beretta sub-machinegun. Two sections plus an HQ group formed the platoon and three platoons, 3 headquarters sections and the company HQ group formed the company. All company personnel is assumed to carry the M15 O.T.O. "Red Devil" hand grenade but note that neither light mortars nor anti-tank rifle are part of the company. Any of these or heavier weapons had to be attached to the company from higher echelon units. All additional data about the Italian company or higher echelon weapons or weapons may be found in reference 19.

The only other Tobruk personnel units, the CREW's and artillery forward observers, are assumed to be armed with the appropriate standard rifle and grenades only. The CREW's are composed of one NCO gun commander and the proper number of other ranks and the F.O. is assumed to consist of one officer only.

F. Obstacle/Fortification Units

1. The trench counter does not represent rows of slit trenches as may be guessed but rather an area completely covered with standard trench entrenchments and hedgerows which all sides found to be of most value in the desert. Since the hex containing an entrenchment consists of a 4×4 grid, it is assumed to be completely covered with hedgerows (not enough to impede wheeled or tracked vehicular travel though), more than one personnel unit is assumed to be able to find cover in the hex and the game is played in this way.
made in the game for the use of the heavy (above 150mm) artillery, which was in the armies of both sides during the Gazala Battles. This is because, except in Scenarios 2.5, 8 and 9, the heavy artillery of both sides was unavailable for use due to the fluid state of the engagements. Also, as in the case of the Stuka, no really suitable targets for large-caliber fire existed on either side in the Gazala area. The weapons were used when available, of course, but for typical desert targets field and medium pieces were suitable.

In general, three missions are possible for the use of artillery batteries in the game. They are:

- Destruction missions—where HE fires are brought on point targets for the purpose of destroying them through direct hit;
- Neutralization missions—where HE fires are brought onto area (personnel or soft vehicles in the open) targets for the purpose of inflicting casualties through fragmentation and;
- Harassment missions—where smoke or HE fires are brought onto any target for the purpose of blinding it, forcing it to button up, forcing it to seek cover or forcing it to move.

Due to the highly mobile nature of most of the game scenarios and the limitations of artillery (long adjustment times, poor direct hit probabilities with respect to direct-fire weapons, limited shifting of fire for effect) most of the artillery fire missions seen on the board will probably be for harassment.

As in the case of direct fire, once any mission is commenced against a target, it is extremely bad tactics to cease fire before the desired result of the mission is achieved.

Comments and Game Deficiencies

Tobruk, like any other game, had to be built within many limitations imposed by the fact that reality can't ever be perfectly modelled. In this case, however, additional constraints arose because of the complexity of the methodologies used for describing combat results.

The effect of this was very simply that many vehicles and weapons used by both sides in the actual Gazala Battles were not included in the game. These included the light tanks, armoured cars, and early model medium tanks used by both sides and a weird assortment of non-standard vehicles and weapons used by the Germans who were very adept at putting anything of marginal use. Without a doubt, however, the inclusion of these extra pieces would have contributed little to the game and would have caused a great deal of extra complexity.

A little problem arose in the research for Tobruk, when it was found that little data was available on British, German, or especially Italian small unit tactical doctrine. This showed up particularly in the areas of infantry-tank and infantry-artillery coordination. Where and how TOS's, for example, were attached and what their procedures were was unknown, and so approximations based on U.S. Army doctrine were implemented and were not entirely satisfactory. This same approximation was used where other needed data was unavailable, but since all armies generally operate in the same way in combat, the modelling of unknowns around U.S. procedures is probably pretty accurate.

As mentioned before, as much emphasis as possible was placed in the game as the simulation of weapon effects. In some cases, however, such as in the case of determining methodologies for resolving the problems of morale, scientific data was completely absent and educated guesses had to be made. This subjective way of resolving these difficulties is obviously not perfect, but it was the best solution at hand especially in view of the fact that research into any area has its limits which must be recognized. In the design of Tobruk, these limits were often reached and the resulting game rule or procedure is therefore probably not near to perfect. Hopefully, though, no part of the Tobruk architecture is designed in an unrealistic or unreasonable way.
THE FIREFIGHTS

Each Firefight is ten turns in length and victory is based exclusively on accumulation of victory points. The Victory Point Table lists all possible points to be scored by either side which, as can be seen, differ considerably from the values scored during scenario play. The reason for this is that the tables reflect generalized values of the various units throughout the entire campaign and are intended to show diverse measures of relative value which were not specifically battle-dependent. For example, throughout the campaign the capture of an enemy AFV would have been of considerable importance to either side but during scenario five for example, little really mattered except the fall of the British line and so victory conditions are based on taking the position and not kill or capture tallies.

FIREFIGHT RULES:
1. Set Up:
   a. All units entering the game must enter on the first turn.
   b. In those Firefights indicated as occurring on only one board section, units moving outside of the board section are considered to have exited the board.
2. Game Length: All Firefights are ten turns long.
3. Rules: Any experimental or optional rules may be used. The Firefights have been designed to be used with the more intricate experimental rules.
4. Victory Conditions: All victory conditions are based upon the Firefight Victory Point Table. The side accumulating the most points at the end of the game wins. Ties are considered drawn games.
   a. Only the single largest point score may be credited for any one enemy unit. EXAMPLE: Points for capturing an M-killed Pzkw-IIfh would be 20, not 23 (i.e., 20 + 3 points for the M-kill).
   b. Points may be scored for both M- and E-kills on the same vehicle.

FIREFIGHT A—"THE QUEEN OF THE DESERT"
In the early days of the war, Italian armored units were often compelled to fight the heavy British Matilda I tanks. The usual result of these engagements earned the Matilda I the nickname "Queen of the Desert":
British—Matilda I x3
Italian—M13/40 x5
Set Up—One side enters from the north edge, the other enters from the south edge onto one board section. Italians move first.

FIREFIGHT B—"AN EVEN ENCOUNTER"
A much better armored match occurred when Italian M13/40's encountered lighter British armor:
British—Stuart III x6
Italian—M13/40 x5
Set Up—(As in Firefight A)

FIREFIGHT C—"DUEL OF THE BEST"
A duel between Pzkw III Special and Grant tanks, the best vehicles on both sides, must have been fascinating. This Firefight sets up such a duel:
British—Grant x8
Germans—Pzkw III Special x5
Set Up—(As in Firefight A), Germans move first.

Special—British must have a 75mm ammunition limit and Germans an APCR ammunition limit as outlined in the experimental rules.

FIREFIGHT D—"CONVOY RAID"
Supply and transport columns would be attacked in the open desert by each side using their fastest and generally lightest armor. The supply columns were generally escorted by fighting forces in the form of armor or at least anti-tank guns:
British—Stuart x6
Germans—Medium Trucks x10
250/1 x2
50mm PAK x2
88mm FLAK x1
Pzkw IVE x1
Set Up—Germans enter anyhex anywhere on east edge of mapboard; move first.
British enter anywhere on north and/or south edges.
Special—Germans score two points extra for every truck successfully exited off west edge of board by end of game.

FIREFIGHT E—"APPROACH IN THE OPEN"
One of the worst possible tasks to ask infantry to perform was to assault enemy positions over open ground in daylight. Nevertheless, it often occurred; especially when enemy strength was unknown:
British—All 'First Platoon' units
2" mortar x1
37" mortar x1
Light Truck x5
Italian—Breda 37 MG x1
20mm Breda x1
Light Truck x1
PLUS: '11/LMG' and '11/R' groups
Hedgehog x4
Weapon pit x2
Set Up—Italians set up anywhere on one section of board. British enter same section from the south. British move first.

FIREFIGHT F—"NIGHT ASSAULT"
A much better way of conducting frontal assaults was to conduct them at night, but in the desert this was very dangerous due to the lack of landmarks which could be seen by moonlight. To compensate for this, illumination was often provided in the form of artillery or mortar star shells by both sides.
British—(As in Firefight E)
Italian—(As in Firefight E)
Set Up—(As in Firefight E)
Special Night Rule—No unit may ever run. Maximum normal firing range for all weapons is 2 hexes at one-half normal firepower. The British player must dismount units at least four hexes from Italian positions. The 3" mortar may not fire HE but may fire star shells at any hex during any desired turn. When illuminated, units in the target hex and within a two hex radius of it may be fired upon at full rate. They may also fire at any enemy units within the two hex radius at full rate.

FIREFIGHT G—"NIGHT RECOVERY"
When immobilized during a battle and not recovered immediately, vehicles were either recovered by friendly units, demolished by the enemy, or captured by him during darkness. Fierce, short firefights often developed between opposing units doing the recovery or demolition work at night:
British—(M-killed) Carriers x3
ACV x2
Light Truck x1 (use as ACV)
PLUS: All 'First Platoon' units
Germans—(M-killed) 250/1 APC x3
Sd. Kfz. 7 x2
Medium Truck x1 (Use as a Sd. Kfz. 7)
PLUS: All 'First Platoon' units
(NOTE: ACV's may tow Carriers or 250/1 APC's and Sd. Kfz. 7's may tow 250/1 or Carriers according to the rules at a maximum rate of one hex per turn.)
Set Up—The three damaged Carriers are placed by the German player anywhere in one board section and
the three 250's by the British player in the same section. Recovery units enter the section anywhere along one edge—each player rolling one die to determine which. A roll of 1 indicates north, 2 south, 3 east, 4 west, 5 or 6 are rolled again. Germans move first.

Special—Enemy vehicles demolished or completely hooked up for towing or being towed at the end of the game may be claimed as K-kills or captures respectively. Friendly vehicles not hooked up, with no undamaged friendly or undamaged enemy units in the same hex, may be claimed by the enemy at the end of the Firefight as M-kills. Any infantry unit may demolish an enemy vehicle simply by being alone in a hex with it for one turn without moving or firing. As in Firefight F, night conditions are assumed to be in effect. Any damage inflicted on enemy units during the game through combat accumulates points also.

**FIREFIGHT I—'BATTERY OVERRUN'**

An artillery battery in the rear areas caught while deployed by an enemy armored breakthrough was in deep trouble. It could choose to hook up and retreat under fire, which was almost never successful, or it could stand in place and try to beat off the attack with armor-piercing ammunition.

British—25 pdr. x2
75mm(f) x2 (treat as 25 pdrs.)
Quad x2
Medium Trucks x2 (treat as Quad)
All 'First Platoon' units except section ‘1/3’

Germans—Pkw 11/H x10

Set Up—British set up anywhere in section B. Germans enter anywhere on south edge of section B; move first.

Special—British artillery must not be hooked up or in process of hookup at start. Vehicles must be at least one hex away from weapon units. British score 3 points for every undamaged Pkw 11/H which has not exited the board section along its north edge by the end of the game.

**FREE FORM SCENARIOS**

Obviously many fictitious engagements may be constructed by players. When this is done, it is suggested that the Firefight Victory Point Table be used to evaluate their outcomes. Some general guidelines about each of the belligerents at Guadal are listed below and should be followed if possible inasmuch as they were true for most of this phase of the desert war.

**British**

—Armor was rarely committed in less than one troop (3 tanks) strength.
—Tanks were often used without support.
—Armored units were expected to charge enemy positions wherever possible.
—Armored units were often composed of different kinds of tanks.
—Specialized battlegroups were almost never created.
—Infantry was usually without transport when in position. Carriers, however, were almost always available.
—Artillery support was available in units as small as one battery (called “troop” by British) when available at all. The 25-pounder, 4.5" and 155mm weapons were usually used together.

**German**

—Armor was rarely committed in less than three platoons (5 tanks) strength.
—Tanks were almost never used alone, mechanized infantry being the preferred companion.
—Tank units avoided hard points of resistance and relied upon artillery to neutralize them.
—Tank units were usually equipped with the same vehicle type.
—Special combined arms units were often constructed around key weapons such as 88mm FLAK and Pkw IIH Specials.
—Infantry was rarely without immediate transport available; trucks or APC's.
—Artillery support was more often available than in the case of the British and usually in at least three batteries in strength. The 105mm howitzers and 150mm howitzers were usually available to any attack or defense with 105mm guns, 150mm guns and captured 25 pounder batteries reserved for special fire requests.

**ITALIAN**

—Armor was rarely committed in less than one platoon (5 tanks) strength.
THE GENERAL

Bulge

by Joseph A. Angiolillo, Jr.

Joseph Angiolillo is a familiar name to wargamers who still remember the dark days of wargaming back in 1955-57 when the only alternatives to the GENERAL were spirit master club magazines. One of these, Tactics & Variants, was widely read by the hard corps of that era. Joe, returning to wargames from a vacation of women and higher education, was one of its very best contributors. Joe and his Connecticut cronies wasted no time in regaining top-notch form—taking 1st place honors in three of the 1973 summer conventions.

The game presented here was playtested 7 times at those cons and received widespread commendation—mainly liking to photocopy the OB for their own use. Basically, what Joe has done is to take advantage of the fact that the Ardennes was the scene of two battles—not just one—and is adapting a portion of the France, 1940 situation into a scenario utilizing the Bulge mapboard and rules. The net effect is a new game showing you what could have happened had France 1940 been designed along earlier lines and on a different scale.

There has always been interest in World War II amongst wargamers. Of the 26 wargame titles published by Avalon Hill 14 have been about a World War II campaign or battle. Naturally, certain armies, campaigns, nationalities, and even regions of the world seem more interesting than others. Certain generals possess more charisma than others; certain armies possess better tactics and doctrine than others; certain areas of the world are more challenging than others.

One of the most interesting areas in Europe is the Ardennes forest in Belgium. Not one, but two major battlefronts took place over this green, forested, hilly, New England-type terrain. In May, 1940 the Germans smashed French and Belgian defense positions during the Sedan breakthrough. They raced to the Channel surrounding the Northern Allied Armies. As a result, France fell; Belgium fell; the Netherlands fell; and Britain escaped by the skin of her teeth at Dunkirk.

In 1944 the Germans attempted to destroy the Americans in the same way. The result was the Battle of the Bulge. There are many reasons why the Germans failed in their objective of Antwerp in 1944: loss of air superiority; loss of fuel; loss of mobile superiority; loss of firepower; loss of a veteran regular army. These are only a few reasons. But the reasons the Germans failed in 1944 and did not fail in 1940 is the topic for another article.

Needless to say, Avalon Hill capitalized on public interest in the Ardennes. Battle of the Bulge and France 1940 are both excellent games about the Ardennes. Bulge is probably more popular and playable. I prefer Bulge to France 1940, but many wargamers are of the opposite opinion.

Bulge is a regional level, advance after combat, game which emphasizes playability and balance. Many articles have been written on the historical inaccuracies in order of battle of the armies and terrain features on the mapboard. In spite of these criticisms, Bulge has not lost its popularity. (See the numerous popularity polls published in Strategy & Tactics magazine.)

France 1940, on the other hand, is more oriented toward historical simulation. It is a divisional and corps level double impulse game with numerous "what if" scenarios built in. Since the French actually lost in 1940 and the game emphasizes historical simulation, the French are the underdogs before the first die is cast.

France 1940 and Battle of the Bulge offer endless possibilities to game designers. Variants have been designed for Bulge and scenarios are included in the France 1940 rules. Little work has been done, however, on designing a scenario for Bulge.

SEDAN BREAKTHROUGH SCENARIO

What is the difference? Isn't a scenario the same thing as a variant? Or is there a difference? Let's look at some definitions.

A variant changes game mechanics. A designer could vary the order of battle, the combat factors and combat system, the terrain, the CTR and even the rules. But he does not touch the title! Battle of the Bulge variants are always about the Battle of the Bulge.

A scenario is just the opposite. The game design is kept intact and another situation is played on the same mapboard. Only minor rule variations are made due to the nature of the campaign. Changes are normally made in the units because the designer is dealing with a different battle.

In designing a Sedan Breakthrough scenario for Battle of the Bulge a designer should first analyze the campaign. He should then study the composition of the forces involved and when they arrived. Their combat factors and movement factors must conform to the original designer's specifications. In Battle of the Bulge, divisional artillery is allocated to the combat regiments and air superiority is included as TAC factors and/ or SAC attacks. Naturally, the final touches are added during playtesting. Playability and balance are added during this stage.

MAY 10, 1940

World War II began with a bang. Poland fell in one month while the French skirrmished with the Germans along the West Wall. The French called this demonstration the Saar Offensive. If it were properly executed Germany's military defense system could have been severely damaged. Germany had only 40 weak divisions facing the French (12 wave I infantry divisions, 9 wave II infantry divisions, 11 wave III infantry divisions, and 8 wave IV infantry divisions). France had 70 divisions on her eastern border (3 light mechanized, 3 cavalry, 7 active motorized infantry divisions, 21 active infantry divisions, 8 mountain divisions, 12 A reserve infantry divisions, and 11 B reserve infantry divisions). Admittedly a few divisions faced Italy, but most of France's firepower faced Germany.

During the winter the situation reversed. Germany gained the upper hand. Veteran divisions from the Polish campaign moved to the West Wall. Germany created numerous reserve divisions, expanded other formations, and increased her armored force by transforming four light divisions into panzer divisions. In the meantime, the French did little to improve their situation. The BEF arrived and a few new French divisions were created, but the Allies did not learn the lesson of the Polish Campaign. Combined arms could be a staggering offensive weapon. The Allies held onto their World War I ideas and stayed on the defensive.

During this period, called the "Phony War" by historians, Germany improved her situation in the West to such a degree that she had more divisions on the field than the combined armies of Britain, France, Belgium, and The Netherlands. Typically, and in terms of experience, doctrine, and firepower the German divisions were much superior to their Allied counterparts.

When the Germans finally did attack they launched their offensive utilizing mass, mobility and surprise. In addition, the Germans out-generated the Allies by attacking where it was least expected, in the Ardennes.

Heinz Guderian, veteran panzertruppe commander of the Polish campaign commanded the XIX corps (1st, 2nd, 10th Panzer divisions and the Grossdeutschland Motorized Infantry regiment). Hoth commanded the XV corps (5th and 7th Panzer divisions). They were followed by numerous infantry formations, including 3 motorized infantry divisions.

Of the divisional commanders undoubtedly the most talented was Irwin Rommel, commander of the 7th Panzer division. He would become most famous for his role in the African Campaign, but even in the Ardennes he exhibited exceptional talents. His division was the first to cross the Meuse at Dinant. And he faced the only real counteroffen-
The French reacted by advancing their cavalry to the Marche-Neufchateau line. Unfortunately, they could proceed no further. The Belgians had booby trapped the roads with demolitions. They expected to slow down the Germans but only delayed French reinforcements.

In the North the French 4th and 1st Cavalry divisions reached Marche and L’Homme line by evening. They deployed along the Ourthe River, expecting to gain time for the advancing French infantry. Behind this screen the French 9th and 1st Armies raced to the Meuse. The French 5th Motorized Infantry division would have no trouble getting into position, but the foot troops would have to force march to arrive on time.

Guderian held back his most powerful reserves. They were either too far north with the BEF or not yet committed.

ARDENNES: MAY 11
On the 11th Rommel’s Reconnaissance battalion crossed the Ourthe in the morning encountering resistance from French cavalry at Marche. Before assaulting the position, Rommel awaited news from the 5th Panzer. A few hours later it reached Hotton and attacked the 4th French Cavalry division. Guderian’s forces rapidly advanced along the Neufchateau road. Aided by numerous stuka attacks, Guderian’s Panzers decimated the 5th French Cavalry division at Neufchateau and Libramont.

Responding to the rapid German advance, other French Cavalry formations destroyed bridges and set up road blocks in the Sedan area. But this strategy was not delaying the Germans at all. In desperation the French fell back to a line east of Longwy. Ninth army sent in its reserves to stiffen the line. Possibly this new position would hold.

ARDENNES: MAY 12
In the north Rommel was ahead of schedule. His pursuit of the French 1st Cavalry division brought him to Dinant by nightfall. Leading elements of the 5th Panzer division were transferred to Rommel but the main body was far behind. After dusk reconnaissance groups probed the Meuse, looking for an opening. Hopefully the quick advance would force a gap in the French line.

In the south Guderian got lucky. The French 3rd Spahis brigade missed its assignment and left the Mouvais ford undefended. The 1st Panzer division took advantage of the error and flanked the French 5th Cavalry division, compelling it to retreat to the forts on the frontier. By noon Germans were in St. Menges, only a few miles from Sedan. An advancing French Infantry regiment was scattered and then smashed by German Panzers. Only 300 men made it to the French lines that night.
**THE MEUSE: MAY 13**

In the Dinant area elements of Rommel's division crossed the Meuse in rubber boats but were ambushed by French infantry hiding in the bushes. Rommel quickly brought up his heaviest tanks for covering fire and the bridgehead held. Luckily for Rommel the left bank of the Meuse rises several hundred feet above the river and French gunners could not see the approaching Germans.

This terrain is not included on the *Bulge* board but from Dinant northward the Meuse is only penetrable in a few isolated regions. Under cover of the cliffs Rommel built a heavy bridge at Houffalize.

In Guderian's front German vehicles surprised the French at Sedan. Sporadic French barrages slowed down the Panzers but there was so little ammunition and transport that the French had to silence their guns.

In the air the Germans utilized their superiority. The Luftwaffe bombed Sedan causing the city to catch fire. The air force also hit the French reserves in the rear areas delaying their arrival. Later it launched a massive attack against the Meuse with bombers and dive bombers covering German infantry crossing the Meuse (elements of the 1st Panzer and GD Motorized Infantry regiment).

The French 9th Army HQ was staggered by the news of Germans crossing the Meuse at Dinant. It ordered the 129th Regiment to counterattack. The Regiment was ripped to pieces by German bombers. Later 9th Army dispatched Hotchkiss tanks to crush Rommel's weak bridgehead. The 5th Motorized, ordered to support the attack, was not ready. The Hotchkiss squadrons attacked, but without infantry support they could not hold the territory they gained.

Against Guderian, 9th Army ordered two infantry regiments, two tank battalions, and the corps artillery to counterattack. Slow assembly postponed the attack indefinitely.

**THE MEUSE: MAY 14**

In both Dinant and Sedan the Germans needed infantry support. It quickly arrived in the form of motorized and regular infantry divisions. Now the Germans could widen their breakthrough and head for the Channel. Guderian wheeled westward with the 1st and 2nd Panzer divisions, capturing bridges all along the river. In the north German infantry crashed through the defenses of the French 22nd Infantry division and the Panzers streamed forward.

There were only a few resources left to the French. In the north the 4th North African and advancing 1st Armored divisions were thrown in as stopgap measures but half the tanks were out of gas. The units arrived piecemeal which further weakened their holding and attacking powers.

In the Sedan area the 3rd Armored and part of the 3rd Motorized division were ordered to attack. Most of the tanks had already dispersed amongst the infantry. The attack was next to useless.

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**THE 1940 BULGE SCENARIO**

Using the *Bulge* board, rules, and CRT you only need new units and a few rule modifications to recreate the 1940 situation in the Ardennes.

Based on analysis of the campaign, three things would have hurt the German chances to surround the Northern Allied Armies: either a slow breakthrough, too small of a breakthrough, or too many losses in motorized troops. As a result the following victory conditions are utilized for the scenario:

1. To win the Germans must meet all three of the following victory conditions.
2. Exit 70 mechanized off the west edge of the board (A through I inclusive).
3. Lose no more than 25 mechanized factors during the game. The game lasts 10 turns.

Other rule modifications based on analysis of the campaign include surprise, movement bonus, and air superiority. Thus, Allied units have restricted movement on the first turn. Because of the surprise and time for orders to come down from headquarters, only Belgian motorized units may move on turn 1 and only at a rate of 3 movement points. All other Allied units may not move on the first turn. Infantry and artillery only double their movement on roads. Cavalry triple their movement. Mechanized forces move five times as fast on roads. Germans may use the two adjacent partial hexagons.
The Germans have 32 TAC factors for the entire game. The Allies have 2 TAC factors. In addition, the German medium bombers can immobilize up to 1 Allied mechanized unit at the rate of 1 per turn after the first turn. Allied mechanized units can only be immobilized in clear terrain or river hexagons, not city, woods, or rough terrain. The immobilized units are only immobilized for 1 turn. Due to air superiority, German units can attack out of supply range.

**COMBAT AND MOVEMENT FACTORS**

Now that we have the rule modifications, what about the combat and movement factors. Combat factors for the scenario units should be based on firepower (killing ability of weapons) and staying power (number of men in a unit and its armor). These two components were the most important considerations in small arms actions in World War II. True, you need to consider other factors such as leadership and tactical doctrine, but these can be built into the rules.

An expanded formula was developed based on a well placed machine gun as 1 factor. The following weapons would have the following factors:

- Pz 1 = 1, Pz II = 1.5, Pz III = 5, Pz IV = 7.5, Pz 38 = 3, FT 17 = 1.7, R 35 = 2, H 39 = 5, S 35 = 8, B 1 = 10, 25-47mm AT gun = 2, 40-50mm mortar = 1, 80mm mortar = 2, 75mm gun = 7, 88-105mm gun = 40, 150-155mm gun = 60, and stuka = 10.

Similarly, movement is based on both training manuals and actual performance. Usually the movement of a unit is based on its slowest component. In mechanized forces this is often towed artillery and/or motorized infantry which takes time to deploy. Sample movement factors would be: Pz III, IV = 8, Pz 38 and S 35 = 6, Pz I, II, H 39, motorized infantry and towed artillery = 5, B 1 = 4, and R 35 = 3. Foot troops, even in a forced march, would move much slower.

**UNIT ORGANIZATIONS**

Bulge stresses uniform formations with variations found in the strengths of the mechanized forces. This fact must be included in our 1940 scenario units.

Normally, German active divisions included more heavy artillery than their French counterparts. They include 3 8-3's. French active divisions would include 3 6-3 regiments. All reserve divisions would include 3 4-3 regiments. French armor (DCR) had 10-5 and 12-4 demi-brigades. French light mechanized divisions (DLM) had a 12-5 armor brigade, a 4-3 reconnaissance brigade, and a 4-5 motorized infantry regiment. A French Cavalry division (DLC) included a 7-3 Cavalry brigade and a 1-5 motorized infantry brigade. German Panzer formations varied.

But we must consider the real units, not their paper strength specifications. The French had more varied organizations than the Germans. For example, the 148th Fortress regiment was partially active and included all the artillery of the 53rd Infantry division. The 77th regiment had 4 fortified infantry battalions and all of the divisional 755, 66th and 125th regiments each had their regular infantry component plus half the heavy artillery of the division. The 208th regiment was reinforced for attack by the 4th and 7th tank battalions. The powerful 6th regiment had half the divisional artillery.
# Bulge 1940

## German Army

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## Surface Raiders

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</tbody>
</table>

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(All counts are simplified and represent the number of units per category.)
BUZZKRIEG RULES

We are now taking orders for the revised second edition of the game Buzzkrieg. More than just a clarification and correction of old rules, the new rulebook makes an entirely new game out of this old favorite. Gone are the unrealistic and loophole-ridden air rules of the past. Buzzkrieg now boasts the most realistic set of air-to-ground rules ever. These new rules take out "Little Blitzkrieg" in the middle of the board - the Blitz is really put back into Buzzkrieg under the new rules making it impossible to hesitations truly lost. Renowned game player Dave Roberts used all his expertise and skill over the past year to perfect the rules for this old favorite and update it to today's high standards in game design.

Here's just a sampling of what the new rules offer:

- A Basic Game every bit as challenging and playable as the old classics
- Realistic stacking rules which really put the Blitz back in the Krieg
- Two square range for Breakthrough artillery and special barage table
- Armor impervious to infantry ZOC
- 15 turn game limit which ends the all but militarily relevant melee
- Strategic Movement
- Greatly simplified and improved supply system
- Hidden Movement Option
- Best air combat system ever
- Strategic bombing of crucial industries
- Naval Ascendency rules
- Ambiguity free (we hope)

We cannot recommend this official rules revision too highly. All current owners of the game owe it to themselves to update their sets and get some real enjoyment out of Buzzkrieg. You can update your game by ordering just the rules although we suggest you also order the new CRT card.

2nd Edition Rules of Play

Revised CRT card

*Plus the usual shipping charges.

PBM EQUIPMENT

Tired of playing solitaire or humiliating the same opponent day after day? You may be good in your game room but what can you do against a good player from another part of the country? There's only one way to find out - play them by mail! PBM is an easy-to-learn and convenient-to-use system of playing fellow gamers across the nation. A special CRT and combat resolution system makes it impossible to cheat! PBM is an entirely different experience from face-to-face play. It has made better gamers of many who have tried it, and all those who have mastered it. None of the same people participate in the many national tournaments held regularly for Avalon Hall games.

Each kit sells for $4.50 postpaid and includes enough materials to play virtually dozens of games, including addendum sheets with list and grid coordinates for those games not already possessed them and special charts and CRT's for postal play.
Opponent Wanted

Wanted: Male or female 18-23 yrs old, any size. Must be willing to travel. Serious inquiries only. Address all replies to: Opponent Wanted, c/o [Your Address].

CONTEST NO. 67

For those who complain about "the inevitable luck of the draw," we offer a contest that should prove different enough to guarantee that there aren't enough winners to warrant a drawing.

This contest tests your ability to break a code. The Roman numeral in parentheses refers to an Avalon Hill game now in print (not all wargames: the Roman numeral is followed by grid coordinates which designate an area within which is a word, a letter, or letters. In the code, words are separated by commas. When you have figured it all out, you will have four precepts of wargaming. Since the encoder was working with limited resources, he has taken some liberties with the language. The meaning should be clear, however.

Precept A:

Precept B:

Precept C:

Precept D:

ISSUE AS A WHOLE: (Rate front 1 to 10, with 1 equating excellence, 10-terrible)
As for the French armor it was understrength. The 3 DCR had 2 demi-brigades of armor. One had a battalion each of B 1 and H 35 tanks with no artillery. The other had the same organization plus the divisional artillery. As for the 1 DCR it also had 2 demi-brigades, one with the 28th and 37th B 1 tank battalions and the other with the 26th H 39 battalion, 5th Chasseurs-a-Pieds battalion, and all the divisional artillery.

On the German side the GD regiment was stronger than the normal motorized infantry regiment, having 4 instead of 3 infantry battalions and a similar number of artillery batteries. All of the German Panzer divisions varied. See the organization chart for more information.

**HISTORICAL NOTES:**
Many other French units could have participated in the battle. Two regiments of the 14th Infantry division (4-3) got lost. The 71/205 Infantry regiment (4-3) was ordered to attack with the 213th regiment but remained off the board instead. Similarly two regiments of the 3rd Motorized Infantry division (6-5) did not attack with the rest of the division. Off the south edge of the board the French held the 71st Infantry division (3-4-3), 3rd North African Infantry division (3-6-3), 1st Colonial Infantry division (3-6-3), 1 regiment of the 55th Infantry division (4-3) and 2 regiments of the 53rd Infantry division (2-1-3). Opposing these forces were advancing German Infantry divisions, also off the south edge of the mapboard.

Four French divisions arrived too late: 2 DCR (10-5 and 12-4 armor brigades), 9th Motorized Infantry division (3-6-5), 4 DCR without artillery (5-4 and 2 1-3 armor regiments), all at about 18 A.M. and 1 DLM (12-5 armor brigade, 4-5 reconnaissance brigade, and 4-5 Motorized Infantry regiment) at about 19 A.M.

Actually the 2 DLM only passed through the northwest edge of the board but was included because it could be used.

**DESIGNER’S COMMENTS:**
Note that the scenario is fairly balanced if the French delay the Germans instead of waiting for them on the Meuse. There are plenty of delaying units and only ten game turns. If you wish you could include the later arriving French units along the west side of the board with German victory conditions changed to: elimination of the entire Allied army. However, this type of game is not much fun for the Allied player.

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**A.H. PHILOSOPHY**
Continued from Page 2

Custom made set of pressure-sensitive symbols for their own design use while 79% wanted expansion kits for PANZER LEADER. The latter is too good a game system to wither on the vine with one title so we will definitely be applying it to other areas in the future.

66% of you were confessed science fiction fans which should put you in good stead when STARSHIP TROOPER makes its debut in the spring. The testing for TOBRUK held up the development of the science fiction game to the present where we figured it was better to go with it as a spring release than take chances with a hasty job done in time for Christmas sales. This means that (counting the publication edition of TOBRUK) we will have 3 games available for fall delivery; TOBRUK, CAESAR'S LEGIONS, and a sailing warship game yet untitled. The latter will probably be the retail release for the fall.

STARSHIP TROOPER will, in all probability, follow the same marketing path in the spring. Although we are a bit disappointed with having only 3 new titles for 1975, it does fall in line with most of you expect from us according to the Readers Response which indicated that 79% wanted from 2-3 new mail order games per year.

Among the complaints of our most frequent critics is our refusal to permit paid advertising of other publishers games in the GENERAL. So we asked the readership for their opinion. 66% were opposed to any paid advertising in the magazine, so we'll continue the old policy in line with the dictates of the majority of the readers. Since the Elite Club was closed to new membership on January 1st with the termination of the Elite Club deal we have been bombarded with requests to reopen it to new membership. To recap the Elite Club deal offered lifetime membership in the Elite Club which entitled card holders to a 61 discount on all mail order games purchased from Avalon Hill. To join, each individual paid $80 for a total of 6 games. We threw in the shipping charges, price overages and a year's subscription to the GENERAL as an added bonus. The deal was available only during 1974 to help promote the 6 game offering we made at that time. We will probably open the club to new membership this year but most of you expect from us according to the Readers Response which indicated that 79% wanted from 2-3 new mail order games per year.

As expected, many of you want your cake and expect to eat it too. Despite your desire for more games, 68% indicated they wanted to run ORIGINS II again next year at the expense of another game. Although we won't be running it, it appears that there will be an ORIGINS II next year. So far three companies have volunteered to sponsor it. Hopefully, we can form some type of executive council which can vote on where to hold the national convention each year, and then support it in the same manner that ORIGINS I was favored with this year. At this writing ORIGINS I is still 10 days off but will no doubt be past history by the time you read this. We've experienced many problems that hopefully can be avoided in future national cons.

Things started off with a bang when the man we had originally dealt with at JHU was fired three weeks before the con. What followed was an endless series of meetings with new management from JHU in attempts to get the same understandings recognized that had existed...
A long dormant interest in Blitzkrieg was reawakened in our editor during his recent playtest efforts on new Blitzkrieg rules just released. Although these rules include a very playable set of "Naval Ascendancy" rules to improve the naval role in the game they, of necessity, lack the nitty-gritty complexity brought in by actual ship counters, etc. This then, is the goal of this article—to provide an official variant for actual naval conflict to coincide with the new Blitzkrieg rules.

Few games have the scope and versatility that the new Blitzkrieg enjoys with the revised rules. In an effort to complete that overall picture we are offering this naval variant complete with accompanying naval counters on the RR page to provide Blitzkrieg aficionados with the final word on their updated game. Many of the factors built into this variant will seem more logical in retrospect when you've gotten your copy of the new rules as only a few of the existing changes will be mentioned herein.

As Blitzkrieg is based on a loose model of the Second World War in Europe we will similarly base our variant on the respective forces of Germany and Britain-France both for historical flavoring and to avoid the basic feel of identical forces.

PORT CAPACITY

All ports will have a physical capacity of 4 naval counters per city hex with water frontage. This is in addition to normal ground and air stacking limits. Stacking at sea is unlimited. In addition, both countries have major naval bases with an unlimited naval stacking limit and repair capabilities. Only major naval bases can undertake repairs of damaged vessels. Blue's bases are A, B, C, and D. The lone Red naval base is RR-M. In addition, the new Blitzkrieg rules call for the inclusion of inland ports. These have been designated as JJJ-56, VV-25, D-31, and L-19. Enemy vessels may not navigate rivers. Ports and bases which have been strategically bombed via the new BB T Tables cannot attempt repairs nor may ships therein leave port during the turn of the bombarding's effects.

MOVEMENT:

Movement is conducted in the same manner as Naval Transport with each vessel able to move one sea zone per turn in either direction. Vessels which leave port must stay in the same sea zone as the port is located in during their turn of exit. Ships may stay at sea indefinitely as at sea refueling and provisions stops are assumed to take place during the time span of the turn. No ship may remain in the sea zone which does not include a friendly port longer than 2 turns in succession. Ships at sea are simply placed in any ocean hex of the sea zone in question with care taken not to place them to the closest coastal hex lest they be confused with a short bombardment or invasion mission. Care should also be taken in the stacking of units. All units stacked together in a hex are considered a single fleet and separate stacks, even though they may be adjacent on the board, are attacked separately should battle result. Thus, if Blue has 3 stacks at sea in Zone C, each must be separately located before it can be attacked by the enemy.

Naval movement also involves separate area differentiation within the Sea Zones. Each Sea Zone is subdivided into 4 different areas or layers identified by their distance from shore. For practicality we'll call them zones A, B, C and D, A being the closest and consisting of the immediate water boxes surrounding the land mass, and D being the largest and representing the outer limits of the ocean expanse. Each fleet is secretly placed on a blank card or card representing area A, B, C, or D. This area indicator can be changed every turn to any of the 4 areas regardless of changes made in Sea Zones. A good system of area differentiation is to use a standard deck of cards. Remove all face cards and use these 12 cards as your area indicators, utilizing a second deck if necessary. All Clubs will be Area A. Diamonds Area B. Hearts Area C, and Spades Area D. This system is especially convenient if you have a deck of miniature novelty cards 1" in length, selling in most novelty shops for approximately 25c. The remainder of the deck will serve as your Base 10 random number indicator.

Ships at sea may change stacks, zones and areas every turn they are at sea. Unlike land movement, naval moves are simultaneous and are resolved before any land or air moves take place.

ENCOUNTER:

Naval battles may occur only if vessels of opposing sides occupy the same area of the same zone and a check of the Encounter Chart reveals a 'contact' has been made. Either side may call out the areas in which it has vessels immediately after movement in hopes of being able to check the Encounter Chart. Neither side is required to do so. Should players find they do have forces in the same area—either or both may attempt to force a contact on the Encounter Chart. The Encounter Chart is resolved by a drawing of 1 of the 40 remaining cards from our deck. If the card drawn lies within the range found on the Encounter Chart players proceed to Battle Procedure.

ENCOUNTER CHART

<table>
<thead>
<tr>
<th>ZONE</th>
<th>CARD DRAWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1-7</td>
</tr>
<tr>
<td>B</td>
<td>1-5</td>
</tr>
<tr>
<td>C</td>
<td>1-3</td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

The percentage of a chance engagement increases the closer one gets to shore due to the increased activities of land-based observation craft, shore watchers, and the lesser chances for evasive maneuvers plus the sheer expanse of the outer regions.

ENCOUNTER CHART INFLUENCES

<table>
<thead>
<tr>
<th>ADD TO CARD DRAWN IF:</th>
<th>+2</th>
<th>+1</th>
<th>+1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search force includes a carrier</td>
<td>+2</td>
<td>+1</td>
<td>+1</td>
</tr>
<tr>
<td>Search force is land-based a/c</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Search force is composed of submarines</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Target force is composed of submarines</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Target force is composed of transport</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Weather is rain, snow</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Weather is fog</td>
<td>-1</td>
<td>-1</td>
<td>-3</td>
</tr>
</tbody>
</table>

THE SHIPS:

Due to the scale of the game it is prudent to continue to represent individual ships abstractly—even in a variant such as this. However, each class of vessel will have very real differences in either search or combat abilities. Capital ships will be individually represented on counters. The numbers which appear on their counters serve as their combat factor for both offense and defense. Carriers have no intrinsic offensive capabilities other than the aircraft they carry. Aircraft can only be based at sea on carriers—not arbitrarily assigned to any sea zone. Carrier-based aircraft are limited to Fighters and Tactical types with a maximum complement of 4 factors per carrier. Sides with more than 1 carrier can have as large a sea based airforce as their carrier strength can support. Aircraft for carriers must come from the regular air force allotments of the belligerents.

Destroyers and submarines are represented by designation only. The numerical rating on each counter represents the actual number of such vessels in that fleet and losses are taken in a "change" manner. Should a DD12 counter lose 2 factors it would be replaced with a DD3 counter.

Transports have no ship counters; the unit being transported represents the transport vessel. Each land unit at sea has a basic defense strength of 1. If lost at sea, that country's naval transport capacity is reduced by 1 unit until replaced.

BATTLE PROCEDURE:

Once battle is joined, players merely exchange fire on the Basic Game Attrition Table. Only Battleships and Cruisers may fire although Carriers, Destroyers, and Subs can be present. River traffic is not allowed. All "Back 2" and "A Elim" results are treated as No Effect. "Exchange" equals damage of 1 factor to the target vessel. Such ships fire in subsequent rounds at a strength 1 factor lower than previously. Once a ship has been damaged to the point that its combat factor is 0 it sinks. A "D Elim" result always sinks the target vessel. Battle continues until one side either withdraws or is eliminated.

WITHDRAWAL TABLES:

Should either player desire to break contact and end the battle they may use either of the following tables.

The Smoke Table may only be used every 3rd round of battle and if successful ends the battle immediately. Cards are drawn from the random number deck.

SMOKE OR EVASIVE MANEUVER TABLE

<table>
<thead>
<tr>
<th>MAKE SMOKE</th>
<th>CREATE SMOKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>1-4</td>
</tr>
<tr>
<td>4-0</td>
<td>1-3</td>
</tr>
</tbody>
</table>

The Cover and Turn Away Table is more complicated. It may be exercised on any turn providing the force in question includes either CA's and/or DD's. The player attempting to withdraw...
designates a portion of his force to make a torpedo run to cover the withdrawal of the remainder of the fleet. No fire is exchanged. The defender may take one double strength salvo at any or all of the attacking torpedo forces. Surviving torpedo ships may draw 1 card (cruisers: 2) from the Random Card Deck and get a damage result for each ace drawn. If the turn-away draw does not succeed, battle continues as normal with all vessels considered in range. Otherwise, the battle ends immediately.

COVER AND TURN AWAY

<table>
<thead>
<tr>
<th>TORPEDO FACTORS</th>
<th>REMAINDER OF FORCE BREAKS OFF SUCCESSFULLY ON DRAW OF:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1, 2</td>
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<td>3</td>
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<td>7</td>
<td>1, 7, 8</td>
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<tr>
<td>9</td>
<td>1, 9</td>
</tr>
</tbody>
</table>

Example: Assume a Red fleet of 1 Battleship (5) and two cruisers (2), 2 attack Blue with a Blue force of 3 cruisers (2), 2 destroyers. Blue immediately elects to turn away, with his carrier and make a torpedo cover run with his destroyers and a cruiser to safeguard the Aircraft carrier.

This amounts to 6 torpedo factors and a 5 is drawn from the random number card deck so the cover attempt is a success and the carrier and 2 remaining cruisers escape the battle. The forces making the torpedo run must undergo the doubled fire of the 3 Red vessels. Red concentrates his fire on the cruiser and 1 destroyer for an 18-3 or 1-6 attack. Both vessels are sunk. The remaining 3 Blue DD's draw 3 cards for their torpedo run but fail to draw an ace. The battle ends.

Example: A Red fleet of 3 cruisers (2), 1 destroyer (1) attack Blue with a Blue force of 3 carriers (1), 3 cruisers (2), 6 destroyers (1), and 4 transports (0). The bombers attack all 4 transports at 12-4 (3-1) and roll 5, thus destroying one. The fleet returns fire at 6-12 (1-2), rolls a 1, and shoots down one enemy air factor.

SHORE BOMBARDMENT:

Naval gunfire support and invasions can only be attempted from Area A. All Capital ships located on coastal hexes can add 1/2 their offensive factors to any ground attacks being made against units on coastal hexes. Such forces are subject to return fire by the opponent's artillery in his following turn.

Example: 2 Red BB's (5) and 5 cruisers (2) add ten attack factors to an attack. Blue moves in 3 full strength Breakthrough artillery pieces in their turn and returns fire against one BB at 24-5 (4-1) on the Basic Game Attrition Table and sinks it.

U-BOATS AND ASW:

Whenever U-Boats have established contact with an enemy force they may attack once on the BGAT. All surviving DD factors may return their fire. The action is then broken off.

Example: 6 U-Boat factors attack a convoy of 3 transports, a carrier and 9 DD's. The U-Boats take two 1-1 attacks against 2 of the transports, missing both and a 2-1 on the carrier (4-2), rolling a "2" and damaging it. The 9 DD's then attack 3 of the U-Boats at 3-1, roll a "6", and sink all 3.

Remember: While an "exchange" only equals damage of 1 point against a capital ship, U-Boats, DDs, and transports only have 1 strength factor and thus are eliminated when damaged.

THE SITUATION:

Blue, obviously the greater maritime power, has much the stronger fleet, as would be expected of a nation bordered on 3 sides by water. However, this works to both her advantage and disadvantage. Due to the high manpower needs of her navy, Blue's army has been reduced by the elimination of her Tenth Army Corps. She is also dependent on overseas suppliers for much of her war material.

Therefore all 10 of the per turn Blue replacement factors are susceptible to loss.

Blue must bring in its 10 replacement factors every turn from off the board. She does this by declaring 1 of 3 Sea Zones (A, B, or C) on her border. She must still hold a port in that Sea Zone which is not isolated from the other centers of production. If enemy forces exist in that Sea Zone a card is drawn from the set of 12 face cards not used in the Random Card Draw. If the area drawn is the same as that occupied by enemy forces a battle ensues. Thus it is always wise for a sufficient escort to be allotted to the convoy each turn to ensure, if not safe passage, at least a costly victory for the Red forces. Each replacement factor is transported by 1 transport factor.

Replacements: Both Red and Blue have 50 Shipbuilding factors which they must spend during the first 5 turns. No additional construction is allowed after the 5th turn. Construction of 10 factors per turn is authorized and must be secretly recorded after each turn so that players will know when new forces become available.

It takes 1 full turn in a major naval base to repair damage of 1 point to any ship.

<table>
<thead>
<tr>
<th>SHIPBUILDING TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost To Build</td>
</tr>
<tr>
<td>BB</td>
</tr>
<tr>
<td>CV</td>
</tr>
<tr>
<td>CA</td>
</tr>
<tr>
<td>DD</td>
</tr>
<tr>
<td>UB</td>
</tr>
<tr>
<td>TRANS</td>
</tr>
</tbody>
</table>

THE FORCES:

Both players may start with their forces at sea or in ports of their choosing.

<table>
<thead>
<tr>
<th>RED</th>
<th>BLUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB</td>
<td>4</td>
</tr>
<tr>
<td>CV</td>
<td>1</td>
</tr>
<tr>
<td>CA</td>
<td>5</td>
</tr>
<tr>
<td>DD</td>
<td>5</td>
</tr>
<tr>
<td>VB</td>
<td>25</td>
</tr>
<tr>
<td>TRANS</td>
<td>40</td>
</tr>
</tbody>
</table>

MASTER AREA CHART

<table>
<thead>
<tr>
<th>Area</th>
<th>SPECIAL EFFECTS</th>
<th>Land Based Area Radius</th>
<th>Basic Encounter %</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Shore bombardment, Invasion, sea-to-land strikes</td>
<td>ALL</td>
<td>70%</td>
</tr>
<tr>
<td>B</td>
<td>Sea-to-land air strikes</td>
<td>NO TAC</td>
<td>50%</td>
</tr>
<tr>
<td>C</td>
<td>Sea-to-land air strikes</td>
<td>NO TAC OR FTR</td>
<td>30%</td>
</tr>
<tr>
<td>D</td>
<td>Sea-to-land air strikes</td>
<td>NO TAC, FTR OR MDM</td>
<td>10%</td>
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</table>
The game was played face-to-face, with all the rules pertaining to face-to-face play. An electronic randomizer set for 1–6 readout was used in place of the die.

The real-space line-of-sight determination option was used, but no other optional or experimental rule was used.

It has been assumed that the road bonus is NOT negated in a town hex if that hex is occupied by a wreck or a friendly unit. It was also assumed that all units may start off the board and enter the same road hex with the full advantage of the road bonus.

The neutral commentary provided by Roy Easton is presented in italics between each move.

**INTRODUCTION**

Situation 4 involves a mobile delaying action conducted by a small but powerful German force against a much larger mobile Russian force. The principle German advantage is the length of his units, since the average range of his A & H class units is 16.5 hexes while the average Russian range is 7 hexes. This range advantage means that the German can stay back and shoot up the Russians without risking return fire. The Russian has only 12 armored units and their loss will severely curtail his offensive capabilities.

The best Russian strategy involves punching along the main road through the woods at J-3&4 and H-4&5 and finally capturing Golod, the adjacent woods, and Grabyob by turns 5 or 6. Speed is essential in these turns to bring the German to battle and eliminate at least 10 German units. Once the desired Russian level of victory has been obtained by eliminating German units, the Russian hides in the towns and woods, finally swarming all of his units onto board 3 on turn 10 to prevent the German from getting a Marginal Victory. Russian units should not be stacked except on town or slope squares because stacks are very tempting targets for the German artillery. The Russian should concentrate his fire on exposed German units to achieve the maximum number of "X" results. The Russian can afford to exchange units 1:1 with the German while the German can't.

The German player controls the tempo of the game. If he doesn't contest possession of boards 2&3 with the Russian, the game becomes a draw. If he does, he risks losing his units and giving a victory to the Russians. Since the Russians have so many units, the German will be able to get a Tactical or Decisive Victory only against a poor Russian player. The longer ranges of the German units must be used to pick off the Russians before they get close and the German cannot afford to stick around to be Close Assailed. Trucks and halftracks should be prime targets, particularly if they are transporting another unit. Russian armored units are also prime targets since their loss will halt the Russian offensive and allow the German to pick off the trucks and halftracks at his leisure.

I feel that there is about a 50% chance of a Russian victory in this scenario and that it is not as unbalanced as previously claimed.

**German Preliminary Comments:**

In contrast to the opinion expressed by Mark Saha (General, V. 11 #1, p. 29, May 1974), I regard this situation as reasonably well balanced and one of the most interesting of the PB situations to play. I think the Russian does have a slight edge, but only a marginal one. I rate it as follows: Probability of Russian victory—40%, German victory—30%, draw—30%. Furthermore, the probability of a net Russian tactical (or better) victory is less than 10%. Not all that unbalanced.

Why do I think this in view of the disparity of forces? The German player has the less burdensome task; he must prevent the Russian from doing things. The Russian player must, with less range and firepower, push the bulk of his force intact onto board #3 and simultaneously destroy significant numbers of German units. Any changes made to equalize the situation should be minor—e.g., give the German more halftracks in place of the trucks; or replace the Jgpz IV with Jgpz V. Simpler would be to reduce the number of Russian trucks or increase the number of units required to be on board #3—but only by 2 or 3 units! Note that making more than one of the above changes is too much. Do NOT change the character of the situation, which is a beautiful demonstration of the effectiveness of a small force in causing a delay to a larger one.

That, in fact, is the key to the German strategy, DELAY. It is just as important (if not more so) to delay the Russian by threats (force him to unload infantry by threatening to take out two units with one shot, etc.) as it is to destroy Russian units. Keep the number of safe (for the Russian) hiding places on board #3 to a minimum. Remember, a Russian unit alive and well on board #2 at the end of the game counts just as much as one you have destroyed.

**Russian Setup and Move 1.**

Of course on the opening move, the Russian player does not know what sort of defensive position the German player will assume. He must assume the worst which is that the German player will take up his best defensive position. But the Russian really can't do much more than get his pieces lined up on the main road through board 2. The limit he can get to is 2&4 on the road in front of the woods. I have unloaded infantry here so I can CAT position 2&4. I can't prevent the German from going in there, but I can threaten him with subsequent CAT, if he does go in there. A German truck or halftrack would be destroyed and anything stronger might be dispersed and destroyed subsequently.

I am also running an attack on the Southern flank. Part of my goal is to get as many pieces on board 3 with as few losses as possible. To do this I need a broad thrust and I do have enough pieces to produce that.

The line up of the forces assigned to the Russian player has tanks loaded with infantry leading. This of course has the effect of keeping the Russian options, open as well as giving maximum potential fire power on the line the German takes. The infantry can spot if they survive CAT. They are also harder to destroy, if tanks and anti-tank guns are used. The German weapons are about evenly divided between anti-personnel and anti-tank fire power. 9 in 98 (not counting halftracks and infantry) but 39 in the GPZ V. The main weapon consists of just two guns. Thus he can use these against, at most, two pieces. The anti-tank weapons are more numerous, but halved against infantry. Hence, our
overall approach is to permit the infantry to take the punishing fire power, and make sure that some survive so that our fire power can be brought to bear on whatever German pieces the players try to move this is the reason for the present set-up. The trucks in the rear can pick up guns and infantry left behind in these fights.

German Move 1:
Here is the first of many difficult decisions: the exact choices here can be critical. My strategy is to concede 4-8 German units; try to hold him to less than 20 units on board #3. Keeping in mind that I am delaying him (or trying to), I must try to block as far forward as is safe. Hexes 21L0 and 2M10 hold the northern flank for one move. The two halftracks 441 and 442 are exposed to fire at 3-1 odds, but for him to fire would not only delay the firing units, but have them exposed to counter-fire from the Nashorn and the gun on H7. In addition, the following units would be delayed because of the loss of the road bonus on the slope. I dare not go into 214, the CAT is too dangerous a threat. The German player simply cannot afford very heavy losses; if for example he loses just 10 pieces giving the Russian a tactical, he must to win, keep 42 or more Russian units off board 3, and to tie, he must keep 32 or more off board 3 while avoiding further losses. Even if he destroys, say 22 to my 10, he still must avoid losing 5 more pieces and still keep 9 of the remaining 29 Russian units off board 3. I have to pressure this position so that enough of my pieces remain after his firing to destroy or spot the German pieces holding me up. But I must also try to keep my losses at a 2-1 ratio or less with his while advancing.

German Move 2:
My first move served its purpose; he unloaded six units (more than necessary, I feel). Now I must either wait to assault my second line, or assault it with less than optimum force. Either way, it is worth one gun. While it lasts, I use the gun on the 821 unit. If I can disperse it (50%), it is vulnerable next move to my long range units. I could have added in my Panther, but it would be left exposed. I cannot afford to slug it out now. The Nashorn will go after his 45mm gun alone; this may be a mistake, but at any rate, I want my infantry in the gully, and at every unit 1 KO now is one less to worry about later. My gun is dead, but he has no other targets. My armor in 2B6 is in position to fire at any assault on Golod without being subject to CAT later. Golod is critical; I want to hold it as long as possible.

If I had my choice, I would rather have dispersed his tank than destroyed the gun. I want to get his mobile units.

Turn 2) Rus: There is no excuse for not attacking the German 442. Had it been destroyed, T-34/85's in H-6 could have commanded Golod. In order to win, the Russian must destroy German units, not let them escape. Too many units were unloaded; one SMG in I-7 should take care of the foolishly placed German anti-tank gun with a CAT. The SMG in I-4 is blocking the road that the Russians must use. Tanks should be in 1-6, not hiding in the gully. In order to shoot at the German, you have to spot him. All in all, a poor Russian move.

Ger: Now is the time to take advantage of the over-cautiousness of the Russian. Use your 41 gun before it dies. Against an aggressive Russian player, the attack with the Nashorn would have exposed it to immediate attack; in this case, it is quite safe since there are no Russian units to spot it, another Russian blunder.

Russian Move 2:
This is a tough and advanced defense line the German player has taken. I have to unload more infantry than I care to in order to crack it. I want to make him decide between exposing his tanks to a high risk of dispersal or leaving. Dispersal of German pieces in this situation will probably result in destruction of the dispersed pieces on a subsequent turn. The German player cannot afford losses, but he particularly cannot afford losses in his tanks.

For example, the German Panther located in hex 2H4 can get 3-1 odds against my T34/85, but this leaves the SU 85 and the 45mm free to fire at him at 3-1 odds; the Panther is also open to CAT. The Panther thus runs high odds of either destruction or dispersal, and dispersal here is equivalent to very likely subsequent loss. I am also pressing positions 2H6-8 for similar reasons.

German Move 3:
Well, he decided to wait. I am not sure, but he might have been better off attacking right away. Maybe not, he usually gets almost all of his survivors onto board #3. If he attacked this move, he would have had difficulty with half his infantry out of action. He does not have lots of time, though. Since his infantry must still load, his attack will probably not come before move #5. This should put me in good shape; the gun is amply paid for. Put the Nashorn in an elevated location. No targets to shoot at; just hold.

German Turn 2: The German Nashorn (850) has drawn the first blood by eliminating the Russian 45mm gun at I3. The German 75mm AT gun (32) misses with a 1-1 on the SU85 (B21).
Turn 3) Rus: Too much time is being lost without killing Germans. Tanks and unloaded infantry should be on E-3 and E-5 with a halftrack or truck on E-4. Two tanks or Stu-4/5's should be on H-4 & S, not halftracks or infantry. The units on E-3 are doubled but they can be attacked from Hill 107. Some effort should be made in order to hit the woods in B-2 and C-1 & S since mortars and the SU-152 in these hexes can attack Hill 107. Thus far, the Russian has concentrated on avoiding casualties rather than causing them and he must soon assume the initiative or lose.

Ger: This is a good move. The poorly protected Nashorn (850) has been moved out of the Russian's range but it can still inflict heavy damage with its longer range. Keeping the Panther (951) and Jps IV (840) out of the battle is a good idea since they are the only really powerful reserves available. The German should begin to worry about the losses of his dismounted units since these are the Russian victory conditions.

Russian Move 4.
This is basically a "saddle up" move. An uncoordinated or too light attack at this point is worse than none at all.

German Move 4:
Finally forced to open up a hole in my line. However, this is on my side, and any breach he tries to utilize should cost him dearly. He has no good hiding places. My pieces are in optimum position for the attack (of course, so are his!) I could have moved the Wespe to 3N3 (starting last move), but I think it is better where it is. I think I am in good shape, and am going to try to win. This means holding here and not running. He appears to be going to lead with his halftracks; most of his tanks appear better positioned for a northern thrust than for the Golod attack. I want to chew up as much as I can next turn.

The choices here are as critical as on turn 1. An alternative approach would have been to put 2 units in the gully (sacrificing one) to delay him a turn. I prefer the one I am using.

Turn 4) Rus: As long as he is massing for an attack, he may as well bring up everything that he can. There are really not enough tanks for the Golod attack in the woods at 1-5 & 4-5 & 8-5.

Ger: The withdrawal of the German rifle unit (1-4) and the halftracks leaves a hole in the line, but this won't matter if Golod falls. The halftrack 442 is exposed but there are no Russian units to take advantage of this exposure. The Nashorn should be left on the slope of Hill 107 where it would be doubled on defense and out of range.

Russian Move 5.
Here I have to expose a lot to getting shot up so that some can survive to spot, CAT or shoot. Some positions are good defensively as well as for spotting and CATing. This is position 2E5. Here by using both his Hummel and Wespe he can't get better than 1-1 against both rifle units and 3-1 against one unit. The rifle unit on the slope at 2E2 threatens to CAT three different halftracks with a two thirds probability of dispersion, and is also costly in firepower to destroy.

Of course it is essential to press the Southern flank now. But if the German shoots this up, he can't use his firepower on hill #107 against the Northern push and this is the only firepower that is really effective against either flank. The SMG unit was unloaded at 2E9 to threaten CAT against the halftrack at 2D8.

I have not pressed in the center on the hill, since this will only provide targets to guns which have none now. The time for such a push is next turn when my entry onto board 3 will give his guns in and around the town of Graboy plenty of new targets, anyway.

German Move 5:
He did not push as hard as I expected; this may be a mistake. I can hold Golod one more turn (I will probably lose a unit doing so), thereby forcing his assault to come through the North. Moreover, I can destroy 3 units without any danger to me. The important point is to try to KO his mobile units. With luck, his dismounted infantry will not make it to board 3 in time. He can CAT Golod next turn, but has no other targets. I think he is mishandling his mortars—they could be used against my gun 41 on the hill if they were within range (say hex 2E8) and should be positioned to threaten to do this next turn. They are his longest range units, and he should make use of the fact. I am preventing him from making use of any good hiding places on board 3.

Turn 5) Rus: Finally, he attacks and the attack is a rather good one with only one unnecessary chance being taken, the stacked SMG and halftrack. Stacked units are tempest targets for German artillery. The two rifle units in E-5 is a good move since the German must be very lucky to disper both of them and they can get into Golod on the next turn. There may be too much on the Southern flank. I'm sorry that this attack didn't come several turns earlier.

Ger: Taking advantage of the overwhelming firepower assembled on Hill 107, the German had destroyed 3 Russian units. Had the Nashorn been back there too, another T-34/85 would have been destroyed. The withdrawal is being carried out in good order, and 141 and 441 cannot be spotted so Golod is safe for another turn. I see no reason to unload the Russian mortars where Ploek suggests. That far, the German is doing very well.

Russian Move 6.
He didn't damage me too much. Now is the time to press all along the line. I have placed the SU 152 in a position where it can be shot at, but it is on a slope and has an intrinsic defense of 16. If he wants to shoot it up, it will take a lot of fire power to guarantee its destruction. Otherwise this position gives the tank a good firing position, or is well suited to move to a position on board number 3.
I will CAT his rifle unit in Golod. Otherwise, I have spread out to press other positions—particularly the woods position taken by his Panther.

German Move 6:
Here comes his push. As I indicated earlier, I am going after his armor. It may not be wisest; perhaps I should try to take out some infantry. However, I must get rid of the armor near the hill to keep my heavy guns active. Using overruns guarantees that his units will at least be dispersed. The halftrack in his rear has two purposes; I hope to entice one of his combat units back there, and maybe I can harass his trucks. As a result of my combat, he has lost 7 of his armored pieces; this will hurt him in his attempt to force his way on the board. He will probably get 5 to 7 of his units, but I expect to hold him to less than 25 units on board #3. Reasonable winning chances.

Turn 6) Rus: Rifle unit 146 should go to D-2 to get to the nearby woods. These woods are too important to be ignored by the Russians. Too many units have unloaded around Golod. The Russian needs to get at least 14 units on to board 3 and he cannot do so if they are unloaded. The Russian really needs to kill some German units at a hurry or lose. The German units around Grabyosh have been foolishly encircled, but the armored units can still get back to overrun the Russian units and still end up back in Grabyosh. This was a foolish move since the Russians cannot afford to lose too many of their tanks or their offensive power will be crushed. A better strategy would have been to put infantry on 2-A-4 and B-4 to surround the halftrack and truck and to keep the tanks on the slopes of Hill 129. The German rifle unit 142 should be chased down and destroyed.

German Turn 6: Russian Rifle units 142, 143 and 146 CAT the German Rifle unit (141) at 1-1 odds with no effect. 141 then withdraws to C4 and CATs the Russian SMG unit (135) at 1-2 with the aid of Rifle unit 142 but is no more successful than the Russians. Elsewhere, the Russian has paid a dear price for his invasion of board 3. The T34/85 (953) at H6 is mauled by the BB (41) at 4-1, as is the T34/C (931) at A6 by the Wespe. The Hummel wipes out another SU85 (622) at G9. Meanwhile, the Russian tanks which tried to spot Grabyosh (932, 854, and 934) were eliminated in overrun attacks by the JgdPz IV (840), Nashorn (850), and Panther (951). Only T34/C (933) temporarily escapes destruction and even it is dispersed by a 2-1 from the 75mm AT gun (31).

Russian Move 7:
I missed dispersing his rifle unit and had half my tanks shot to pieces. I can now probably only get a marginal victory from him and hope to prevent him from getting a marginal. This is the only chance I have now of winning. I don't think that he can do better than me with a marginal. I can guarantee getting two pieces and have a good chance of getting two more this turn, and this will give me the marginal. Only if he permits five more losses can I do better. Of course he may have to risk this, if he hopes to get a marginal for himself.

German Turn 7: The Russian gains a small measure of revenge by eliminating the German Rifle Unit. 141 in Kolkhoro with a 4-1 attack from her 45mm (14) and 75.2mm AT (31) guns. The Russian Rifle unit 141 and SMG 104 eliminate the German 75mm (31) and a truck (422) with 4-1 CATs. The German responds by knocking out T34/C (933) with his BB (41) at 4-1 and disrupting the Russian Rifle unit 144 with a 2-1 Overrun by the JgdPz IV and Nashorn (840) and 850).

German Move 7:
I think I may have made a mistake last move; I did not intend to let him have such an easy time getting the woods next to Grabyosh. Now I have to leave the hilltop (I think?), and he is sure of his 3 units. The halftrack move to his rear forced a couple of trucks north, but did not accomplish much else. I will try to chase his tanks and prevent his 182 SMG unit from loading. A halftrack goes into the gully at 3E9 so that he dare not simply pile loaded trucks in there and have them invulnerable. My Hummel is just barely safe from a unit in 3C6 (measured). I need to kill about 10-15 more units to win. I am ignoring the dismounted guns on board 2 that are exposed. I do not expect them to ever reach board 3.

Turn 7) Rus: The rifle unit 181 should have CATed the German rifle unit 142. The mortars should be unloaded to attack the 88 on Hill 107. After losing most of his armor, the Russian has fortunately

German Turn 5: The Russian is paying the price for a partial closing with the enemy. The Hummel (631) eliminates the Russian SMG (169) and Halftrack (445) on G3 with a single 4-1 attack. The Wespe (621) likewise nails a T34/85 (953) at E3. The BB (41) manages a 2-1 Dispersal of the T34/85 at C8.
decided to continue with his conservative game. He really cannot afford to lose many more units and still prevent the Germans from getting at least a Marginal Victory. The Russians still need to kill one more German unit to get their Marginal and should get 441 and/or 142.

Ger: The roll on the overrun of the Russian rifle unit 144 was unlucky but not fatal. It certainly seems time to abandon Hill 107 since the SU-152 is within range and the 88, having fired, is dead. The German seems to be getting a little careless now. He should have used the halftrack 441 to pick up 142 on C-1 and should not have sent the Panther back onto board 2.

Russian Move 8.

I missed his 75, but I can guarantee getting his 88 this turn, thus giving me my marginal. Now I shall try to keep him from getting a marginal and try for a tactical. This is going to be hard to do, given the heavy damage he has inflicted on my tanks. For now we are both playing hide 'n seek and shoot at whatever you find.

I can't load the SMG unit with his Panther sitting next to it, so I may as well CAT it. I have a one third chance of missing him so the placing of my T34/85 is a bit risky, but if I succeed I will be in a good position to shoot the Panther next turn and CAT again. Unless I place the halftrack with the infantry this turn, I cannot get to board three anyway, so I have decided not to risk two pieces adjacent to the Panther in the same hex. Thus, I won't get the SMG on board 3, but, hopefully, I can use it to pin and possibly destroy the Panther.

German Move 8:

I do not like the looks of this any more. It appears that he is going to try to settle for a marginal victory (very wise), and by playing it this conservatively he may succeed. With only two moves left, if he runs everything on the board and scatters them, I may not be able to KO enough to hold the draw. What I have to do is try to generate as many chances as possible to get two units with one shot. Unless he blunders, I no longer have any winning chances. I want to try to block as many of the safe hiding areas as I can, otherwise he wins for sure. I wish he had tried to use the Saha strategy; I would have destroyed many more of his units by now.

Turn 8) Rus: Wiping out the 88 guarantees a Marginal Victory; it is now necessary to see that the German cannot get at least a marginal too. The CAT by SMG 182 neatly traps the Panther which was foolishly moved onto Board 2. The Russian is now moving to conserve his units until turn 10 when they will all be moved onto board 2. The German has having a little careless and the game will be very close.

Ger: The Panther seems trapped on board 2 while it would be of more use back on board 3. Putting the halftracks in the gully is a good idea and the Hummel should be moved to the south side of Hill 107 where it can command the gully. The German must now concentrate on the Russian units to keep them away from board 2.

Russian Move 9.

His 88 is gone and I dispersed his Panther. Possibly I can destroy it this turn. There is an excellent chance of dispersal if not destruction. Next turn I will get the T34/85 on board 3. At last I'm in a position to CAT that damn JgdPz IV which just destroyed my rifle unit in an over run. My best strategy now is to try to disperse as much of his firepower as possible, and keep my marginal victory while preventing him from getting one. Thus I am playing for a 1-0 win. Not very impressive, but certainly better than 0-1 or 1-1.

I can't shoot at his Wespe and Hummel, but on the other hand they can't shoot at anything, if my CAT works and that is the next best thing to being dispersed, or destroyed.

German Move 9:

Now he is all set for his final dash. I am trying to get the best possible position to destroy units that get on the board. It does not matter if he gets one or two more of my units now; what I need to do is destroy 5 of his next time. I got lucky on my overrun of the infantry with the halftracks; a draw is probable.

Turn 9) Rus: The game is very close and will be decided on the last turn. The Panther unfortunately survived but the JgdPz IV was dispersed. Moving the rifle unit 142 along the road puts it in position to CAT German units in the gully. Had the German moved the Hummel to the south side of Hill 107, the SU-85, and all other units, would not be safe in the gully. Now is the time to bring up everything for the big rush onto board 3 next turn to decide the game.

Ger: The Panther is holding up 6 Russian units so it is not doing too badly. If it is not dispersed next turn, the German will probably win since he will be able to eliminate 6 Russian units.

Russian Move 10.

I didn't destroy his Panther, but at least it is dispersed along with his JgdPz IV. I'll CAT both of them again and hope for the best. I can also get a shot at his Wespe with a very good chance of dispersal, and my 76.2 has an excellent chance of destruction or dispersal of one of his halftracks.

German Move 10:

I got lucky on his attacks; now the draw is guaranteed. Had he been able to put my Wespe, Panther and JgdPz IV all out of action, my only recourse would have been to try a 1-2 overrun with a halftrack against his recon unit.

Conclusion:

The final result was: 6 German units destroyed, 29 Russian units on board #3; a marginal-marginal tie. I may have to revise the opinion I gave in the introduction. I now think the odds are: 50% Russian victory, 25% draw, 25% German victory PROVID-ING the Russian player plays for a cautious marginal victory and does not try to "... drive head-on, pushing fast and hard, practically regardless of losses." I should have done somewhat better. I did have slightly better luck than my opponent. I think my sixth move was more of a mistake than I realized. This, in fact, is what gives the Russian the advantage—the German has no margin for error.

Turn 10) Rus: This is it! The 76.2 mm anti-tank gun on Hill 129 has claimed another victim. It's been doing very well. There are now 35 Russian units on board 3; if
DESIGN CREDITS: PANZERBLITZ Situations #1-12, PANZERNACHT, LEYTE GULF, 1776 playtest

Let’s get one thing straight: a tactical wargame cannot approach realism—only complexity. Perhaps wargame simulations can reflect command functions above division level—the player can push units around a map in his own Führerbunker and approximate the real thing. And it is a best example of this, with its complexities of mobilization and offensive.

This is not true on the tactical game-board, however. As a wargamer and an armorer officer, I believe I can safely say I do not find the two compatible. Do you want to know what commanding a small armor unit really means? It means tanks breaking down, tanks throwing tracks, mired tanks and tanks disappearing altogether because the TC either: 1) thinks he’s John Wayne or 2) can’t read a map. It means ineptitude radios and incompetent radio traffic, and every command frequency you except the one to your CO, who’s yelling in your ear, demanding a situation report (because he knows even less about what’s happening up the road than you do). It means hearing gunfire somewhere up ahead, and holding a map, blurred by the shaking of the vehicle, in one hand while you’re using the other to call down artillery that won’t, hopefully, fall short and ruin your day.

A wargame not only spares the wargamer the bloodshed of modern warfare, but also the organized confusion. No wargame can even approximate it. The only reason PANZERBLITZ and PANZER LEADER come the closest to the spirit, the feel of division-level combat is because they have the virtue of being playable and fast-moving, whereas most tactical games on the market get enmeshed in their own complexities.

Still, a wargame is expected to at least approximate reality, within its own limitations—that is one of the canons of our hobby. Hence, the victims of the PANZERBUSH Syndrome can’t understand how PANZERBLITZ units can scurry under the guns of enemy units, which can’t fire because a) shooting isn’t allowed during the movement phase and b) when the fire phase does roll around, the targets are all hidden in bushes and other cover.

This is indeed frustrating. However, before we combat this by modifying the game (rather than our own tactics), an examination of the actual conditions is in order.

The biggest complaint of PANZERBUSH critics is the fact that lateral movement can’t be interdicted by fire. One major point should be made here: a stationary vehicle can be hit with much greater ease than a moving unit; the only exception to this is when a moving vehicle is coming straight at the firing unit—then the target appears stationary in the reticle; it just grows bigger.

The way current PANZERBLITZ rules work, if the vehicle comes straight at the defender, he’ll get a chance to shoot back next turn—before the attacker does (the attacker is usually right next door, in order to expose the defense, who is himself hidden in his own bush). The problem arises when moving units scuttle through gaps in the defender’s line. The defender has no means to interdict these units before they dart into another bush, which brings us to the point made in the last paragraph.

Prior to the advent of wire-guided AT missiles, the only way to track and destroy a moving vehicle would be to bring a gun-tube to bear and put a round (or several) into it. (Near-misses count only in horseshoes.) Riflemen can easily do so with hand-held weapons, as long as said vehicle is a truck or wagon. AA units, with swivel-mounted weapons, and trained in rapid acquisition and engagement of moving targets, can also perform this function, particularly as they can spray targets with automatic fire. I can even stretch a point and admit that vehicles with power turrets, with experienced gunners, can also track and destroy a moving AFV. But that’s it!

I am familiar with U.S. field artillery, and have the opportunity to examine captured German and Soviet equipment. Controls on artillery pieces—and the manual controls provided in tanks, as backup systems or otherwise—are invariably dual: one crank for traverse, one for elevation. Moving the tube requires a coordinated combination of the two. Effective enough for indirect fire (which is off a set of coordinates and dependent on bursts rather than direct hits) and against stationary targets. But a gunner frantically cranking both, while peering through a reticle and trying to track a moving vehicle, will be hard-put to get a hit.

That’s under ideal conditions. Try that with an artillery piece that has the traverse and elevation controls on opposite sides of the gun (as with the U.S. 105mm howitzer), or with a fieldpiece that doesn’t have a direct-fire sight at all, and the problem verges on the ridiculous. And inherent in all dismounted artillery is the face that they have limited traverse—sooner or later the crew will have to pick up the trails and horse the damn thing around.

A second facet of the PANZERBUSH controversy is the fact that units can take advantage of the Spotting rules and hide behind terrain features. I detect resentment at the fact that moving units can hide in much of the map—indeed, many tactical wargames on the market have large stretches of open, featureless terrain. It should be pointed out here that small-unit leaders must keep their people under cover if they are to survive—20th-Century weapons have the capability of killing unprotected personnel and vehicles with great efficiency. The platoon and company commanders in the units moved to and fro on the PANZERBLITZ and PANZER LEADER boards will be on the lookout for available cover and concealment.

Accordingly, although you, the player, can see all friendly and enemy counters from your Olympian vantage-point, your units can’t. Hence, even a few trucks in a woodland can cause an enemy unit to be halted for a turn or so. Although you may know it’s a truck, the man in the lead tank may not know they are, or if he does see them, he would (wisely)
assume the presence of artillery or infantry somewhere near. So the unit will have to deploy and attack accordingly—they can't barbwire through.

Sheltering under the same cover is the enemy's fighting units. It may be argued that a Wespe unit can help themselves out from the woodline 750m away containing two SU-152 batteries and two riflescope companies—but seeing them is something else again. Sure, HE rounds could eviscerate everything within that 250m-wide hex—in that respect, the PANZER LEADER spotting rule that a firing unit be in its target location and is 'spotted'—but 'A'-class weapons, which are usually firing solid-steel AP rounds, requiring a direct hit on a visible target, should not be able to fire into that hex with any results. More on this later.

In response to the complaints of the PANZER-BUSH lobby, AH instituted Opportunity Fire rules in PANZER LEADER. Basically, OpFire means that a unit that expends 3/4 or more of its MF in an enemy unit's LOS may be shot at; firing unit may not move or shoot in its own turn. This means a dramatic change in the course of play, as opposed to P2P48.

OpFire does have some positive uses—it helps simulate defensive fire-planning, and helps curb abuses of the Spotting rules (i.e., trucks and wagons dashing past enemy units, carrying infantry in the most unlikely fashion). But for the reasons noted above, distinctions must be made between the various weapons-systems, or we're back to the super-artillery of WATERLOO and GETTYSBURG.

I offer the following, for both PANZER LEADER and any OpFire applied to PANZER LEADER:

1) No 'A'-class unit may fire into a woods or town hex (unless an undisplaced friendly unit is adjacent to the target hex—then it's a whole new ball game). Basically, this returns us to PANZERBLITZ spotting rules, as this merely prevents 'A'-class from firing at muzzle-flashes.

2) Opportunity Fire may only be performed by the following:
   a) all 1-class units
   b) all AA units (including M16 and Wirblewind)
   c) all turreted vehicles—basically, all AFV except the following

   ALLIED: Sexton, M7, Recon HQ, halftracks, M3 Scout, Bren carriers

   GERMAN: SdKfz 234/4, Wespe, Maultier, Hummel, Gw.88, StuH42, StG III, Marder III, Hetzer, Nashorn, JgPz IV, JgPz V, JgPz VI, halftracks

   SOVIET: SU-76, SU-85, SU-100, JSU-122, SU-152, halftracks.

   (Note that the German and Allied armoured cars are not marked as 'Turreted AFV' on the PANZER LEADER unit information sheet, but, with the exception of the SdKfz 234/4 noted above, they were turreted AFV).

3) 'A'-classed towed artillery may perform OpFire, as follows:
   a) All 'A'-class towed artillery units have a field-of-fire (FOF) radiating straight outward from the front of three hexes in front of the unit (that is, the hex directly in front of the unit, and the two hexes—also adjacent to the unit—on either side of the front hex). Those units with FOFs may only fire at targets in their respective FOFs. NOTE: The FOF includes all hexes between the three rows of hexes radiating out from the front of the unit. A FOE gives the unit 60° coverage in a manuevering hex.
   b) All units with FOFs must point the front of the weapons-symbol on the unit towards a specific hex-side. The hex—and all hexes behind it, in a straight line—is the center of the FOF.

   c) Units with FOF may change facing within their hex during the friendly movement phase. Assistance by vehicular units is not needed, except for assistance by the PAHLEADER as specified by the general FOF rule for artillery therein. Units may not change facing if they have fired during the combat phase immediately preceding. Units may not change facing at all during any other part of the turn.
   d) Units under this FOF rule ('A'-class towed arty) may utilize OpFire if, and only if, enemy units have expended a full 3/4 of their MF in the FOF, in addition to being in the units LOS. Units so using OpFire may not change facing during the next friendly movement phase.

4) Mechanics of OpFire (for PANZERBLITZ owners):
   a) Units able to practice OpFire (under the above rules) may fire at moving enemy units if the target unit has expended 3/4 of its movement in the firing unit's LOS.
   b) OpFire is done during the enemy movement phase. The defending player (the non-moving player) watches as the enemy player moves each unit. When a moving unit has moved 3/4 of its move in the LOS of a friendly unit, and if the friendly player decides to fire, the unit is stopped in the hex it completes 3/4 MF in the LOS of the firing unit, and the attack is performed.
   c) Each firing unit may fire only once that turn. When it does fire, it is to be marked (either by inverting it—although it is not dispersed, or putting some agreed marker on it—e.g., an inverted wreck counter.) Units that have performed OpFire may not move or fire during the friendly player's turn.
   d) OpFire is always voluntary, insofar as the firing player is concerned. He may choose not to fire, whether at a particular opportunity, or for an entire turn. It is never mandatory.
   e) LOS, for OpFire purposes, does not extend into woods or town hexes, unless those hexes in question are spotted by an undisplaced friendly unit, as in Spotting Rules.

   This, basically, returns OpFire to some levels. It underlines the importance of armor—particularly the tank—but, just as in the old PANZERBLITZ, requires the player to intelligently utilize key terrain—and deny it to the enemy.

   The importance of key terrain cannot be underestimated. Anyone who has served in the field, even in training, can testify to the effect a simple hill can have—particularly if it has to be climbed. And that situation can't be overcome by a complaint to AH—that's one game where the rules can't be changed for the player's benefit. Thus, I contend that PANZERBLITZ, although it didn't make some generalizations for the sake of playability, was the best tactical-level game made. I contend that the OpFire and amended Spotting rules inserted in her WestFront counterpart, PANZER LEADER, constitute an anomaly, and the above recommendations prune these rules back to manageable levels.

   Within those parameters, PANZERBLITZ and PANZER LEADER together can constitute the best simulations of mechanized warfare.

THE GENERAL

A.H. Philosophy

Continued from Page 17

under the old relationship. Shaffer Hall which had been promised to us months in advance by previous management was suddenly taken away for Friday night due to class finals being scheduled for the weekend. Notice of this change did not come until after the programs had been printed. This meant that Shaffer could not be set up for Saturday activities until 10PM Friday evening. A prior agreement that room reservations would be acknowledged by JHU was not kept due to a communications problem. No one received confirmation of their reservations although their rooms were waiting for them. At this date we can only speculate on what effect this will have on attendance. But we do have a predetermined number of over 500 so we are guaranteed that ORIGINS will be the largest wargame convention yet held. JHU is taking steps to help out at every turn so we hope to be able to report a very successful fait accompli in the next issue.

Only 24% wanted ANZIO pbm kits and yes even less wanted them for TACTICS II so it is unlikely either will see fruition. However, the ANZIO Basic Game is such a good pbm game that we may just go ahead and run some as a service to game owners. Only 31% used the WATERLOO playing aid in Vol. 11, No. 6, yet 82% wanted to see more such efforts. Similarly, only 41% used the plans for compartmentalization trays printed in Vol. 11, No. 1, but 78% wanted to see more. We'll probably continue to use them from time to time as space fillers.

Vol. 12, No. 1 proved to be the most popular issue we've ever published with a cumulative rating of 2.67, 07 better than Vol. 11, No. 4 our previous record. Vol. 12, No. 3 will feature an excellent Jutland article by Dean Miller which will include 5 new scenarios and dozens of new ship counters. Naval buffs won't want to miss that one. The 1200 point scoring system for the last issue showed our feature article returning to top popularity with Rob Bevma's 1776 treatment of the North Atlantic. The voting breakdown looked like this:

1776—A Continental Overview...

375

Avalon Hill Philosophy...

375

The Turk Connection...

100

Assassin's Creed...

81

Philosophy...

68

Sold from Workshop...

58

Battle for Berlin...

33

Philosophy...

27

More on Compartmentalization trays...

9

Showdown...

2

ANZIO TACTICS II...

3

Conference Box...

1

Trenches...

1

Infantrymen's Report...

1

The new WATERLOO rules are now available from the Parts Dept. for $1.25. While the game remains essentially the same changes to river and forest rules affecting movement will probably alter play balance considerably in favor of the French player. The old battle manual is incorporated into the new rules as are directions for printing grid co-ordinates. Numerous minor changes were made which are too lengthy to go into here but consist primarily of removing ambiguities from the old rules. Do not expect to find the new rules in a recently purchased WATERLOO game as it will probably take a year or two for old stock to be replaced. The new rules will be available only from the Parts Dept. for the time being.
Which City First?

Stalingrad: Emphasis on Advanced Planning
by Richard D. Moyer

"There is no instance of a country having been benzoned from prolonged warfare. It is only one who is thoroughly acquainted with the evils of war that can thoroughly understand the profitable way of carrying it out."

Sun Tzu, The Art of War—500 BC

In the game of Stalingrad, one side (Germany) has definite, set goals which take precedence over the destruction of the enemy army in the field. To accomplish these vital goals, which is the capture of all three target cities—Moscow, Stalingrad, and Leningrad, it is most important that a certain amount of time and thought be given to setting up a strategic plan which will 1) accomplish the aforementioned prime objectives and 2) predetermine future action when the primary target cities have been taken. At first glance, a novice to the game can be misled, very easily, into a false sense of security: he notices the size of the Panzer Arm available to the Wehrmacht at the outset. Unfortunately, the result of this conclusion is normally a wide dispersion of Panzer strength along the length of the Front with the aim of capturing all three, or at least two, of the target cities simultaneously. Repeated failures, using this strategy will awaken the frustrated German to the idea of bunching his tanks together into "killer packs" where they will be able to work in conjunction with each other, on a single front, with the aim of achieving a solitary breakthrough and then exploiting their combined advantage.

The purpose, therefore, of the following is to point out both advantages and disadvantages of each of the three Russian cities and hopefully assist the Wehrmacht during the decision making portion of the game.

Objective Leningrad:

When Leningrad is chosen, by the German, as the first city to strive for the decision can be supported by very persuasive arguments. Primarily, it is the closest of the objectives facing the Wehrmacht; thereby shortening the normal amount of time needed to reduce Russian replacement strength. Also, after the capture of the city, Helsinki is opened up, once again, as a supply route. This will become an additional, invaluable asset if a flanking assault is begun on the Soviet capital. An attack against Leningrad has tactical as well as strategic advantages in its column. The complete subjugation of the city cannot be realistically expected any time before the onset of the first winter, assuming you are playing a competent Russian opponent. This will work in the German's behalf. Just as the snow halts the advance to a crawl it will also freeze over the city's last line of defense, the Luga and Volkhov rivers. If the Soviet Army has received minimal casualties (which they will have done, in all probability) these rivers are their only hope of containing the German advance in an organized defensive locale before the suburbs are overrun. Using foresight and clever use of the movement factors you have left, a bridgehead, at the very least across the rivers should be obtained even at the risk of attacking through the marshes and across Lakes Peipus and Ilmen. This will prove essential, if lacking the striking power for a frontal assault, you choose to put the populace on a starvation diet by the Spring of 1942.

However, along with all the good, Leningrad possesses an equal amount of poor and possible trouble points. Foremost among these latent thorns in the side of the Wehrmacht is the Nemunas River. Almost always heavily defended, this river must be crossed quickly and in strength to ensure a rapid breakthrough to Minsk and eventually the Dnepr-Dvina River line. A slow, time-consuming flanking effort through the Nemunas-Bug River gap will defeat any plan to seize Leningrad quickly and even with phenomenal success afterward your spearheads will be stalled outside the, now free flowing, Luga and Volkhov Rivers. Another threat to the success of this German effort will be the arrival, at the front, of the Soviet veterans from Finland. If a decisive breakthrough has not been established by the time Helsinki falls, these additional troops will bolster any sagging defensive areas and often provide enough of a reserve for the Russian to go over to the offensive, temporarily. The time the Finns gain for the Wehrmacht should be put to the best possible use. If the advance eastward is swift enough the Soviets might even be forced into a garrison situation if required to disengage units in Finland to contain a thrust on the main front. This last statement, of course, is pure conjecture and its validity will stand or fall in any number of situations. Proper procedure and Grand Strategy, in this instance, will be left to the discretion of the commanding German General.

Objective Moscow:

Moscow, the Soviet capital and heart of the Russian war machine in real life, holds no political or morale boosting after effects in Avalon Hill's recreation of the campaign as it did during the actual conflict. Therefore, it should be dealt with like any other objectives on the German agenda for conquest. To delve into the advantages of assaulting this city, it is wise to visually scan the mapboard first. The initial glance will show you that the geographic position of the city, in the center of the Soviet Union, would be a definite boon to the Wehrmacht should it fall into German hands. Future operations against the remaining two cities would be made a good deal easier with the German Army positioned in the center of Russia. Flanking possibilities are boundless and the German Panzer arm would be in store for its prime intended usage. Because of its central location and the difficulties that would occur should the city fall, Moscow is usually defended most tenaciously by the Soviet Army. This will mean that, at the beginning of the game when German losses play a less important role, the Wehrmacht will face an extremely rigid defense. As the game progresses, naturally, a severe German casualty rate will hinder swift progress as more and more strong units, from the spearheads, will have to be dropped off and left behind for reinforcement. However, in the months prior to the Russian replacement rate German losses can be justified and accepted as a necessary evil in exchange for the capture of Moscow. The losses that will be inflicted on the advancing Wehrmacht can be further rationalized by the knowledge that if the operation is successful the General Staff may rest assured that their advance was over the flower of the Soviet Army. A flower that may not ever bloom again with the loss of this very important objective.

Moscow, by no means the easiest of the three targets to take. In fact, it may even be classified as the most difficult. The trouble, in capture, could stem from any number of possible problems. The city is protected by an extremely large amount of geographic defense lines. Paramount, once again, is the Nemunas River and Minsk. Close behind this first stumbling point is Smolensk and the Dnepr and Dvina Rivers, a tough nut to crack, indeed, if competently defended. With the Pripyat Marshes protecting their flank to the South withdrawal can be expected from one doubled position to the next. Unless the Wehrmacht has succeeded in inflicting severe, crippling losses on the withdrawing Russian Army a frontal advance, eastward, along the Moscow Highway could turn into colossal Napoleonic disaster. (See Diagram 1.) A two-pronged thrust, on either side of the Pripyat Marshes could provide the answer. However, for either arm of the pincer, whether it be the North or South, to make any notable progress a majority of the available tank strength will have to be allotted to one side. This reduction in striking power may have severe, long-range, adverse effects on the campaign as a whole. The Wehrmacht assuredly will discover itself being channeled into what may turn out to be a tedious and fruitless salient ending abruptly at a half-proof defense line. Many times this salient can be seen being formed in the central sector with...
Smolensk as the farthest advance position. If this should turn out to be the case, replacements from Leningrad and the returning units from Finland may prove to be just enough to provide the Russians the strength for a Winter counter-offensive.

**Objective Stalingrad:**

Stalingrad, the southernmost city that the German Army must deal with, is given secondary importance by many for various reasons. To mention several you would have to say that the distance from the Russo-German border to the city is enough to frighten some away in itself. Another would be that many very good German commanders still live under the popular misconception that they will be given the city, without a siege, if they drive hard enough on Moscow. This "gift," so to speak, will be received very seldom if at all. Therefore, we must assume that the Soviets plan to defend Mother Russia with the utmost zeal and tenacity and base a conclusion upon that. The positive aspects, then, of a Southern Campaign would be primarily surprise. A very strong sense of security is created in the Russian camp by the numerous rivers (i.e., Dnepr and S. Bug), crossing through a majority of the Ukraine. Therefore, speed and daring are of the utmost importance in this sector of the front. A quick crossing of the Prut River in June, 1941 in conjunction with a thrust into the Lwow area and in July with a move through Hungary is many times sufficient to create disorder and a lack of continuity in the Soviet defense. Once a breakthrough has been achieved, by the Wehrmacht, doubled terrain positions are scattered with tremendous areas of wide open steppe separating them. This will greatly cut down on the time, at first glance, it looks as if will be needed to arrive at the gates of the city. The Southern front is the largest of the three we are analyzing; therefore, a greater number of troops will be needed to protect it sufficiently, thereby weakening the other fronts. Land gain is tremendous and quick. If a Southern assault serves no other purpose than to cut down the necessary time of the campaign in terms of miles traversed, without loss, it has one major irresistible plus in its favor.

**DIAGRAM II**

Diagram II illustrates the head long impetus of the German Armies in the South. The Dnepr River has been breached along a wide front and troops and equipment literally pour into the Donets River Basin (the most direct route to Stalingrad). Once there, the plans call for the final death blow to be dealt to the reeling Soviet Armies outside Stalingrad. Although the Russians are short of breath they are led on, making up for losses with available defense lines as they draw closer to their supply bases in the rear. A quick Soviet counter blow delivered to the rear of the German spearheads will sever communications and supply from the rest of the Army leaving the advanced German units stranded and helpless outside of Rostov.

The table below exemplifies only five of the many questions a German commander should ask himself before embarking on a campaign of Eastern Conquest. Each of the questions has been rated on a scale of three; excellent, good and fair, based upon the probability of their chances for success. You will notice that I purposely omitted a poor or no chance at all rating. This was done to demonstrate that nothing is impossible and that things that "appear" difficult to overcome are, in reality, only facades to cover weakness. A knowledge of the enemy's intentions plays a major role in any military campaign whether it be genuine or fantasy. To be able to expect things prior to their happening will enable us to forecast them before crippling damage can be inflicted on your forces.

**Observations and Conclusions:**

Operation Barbarossa is a gamble. Hitler realized this when he risked sending his legions into a two front war in 1941. Due to the immensity of Russia, it cannot be conquered and occupied as the Western nations of Europe could before her. Therefore, only through the use of well-planned, thought out and executed hammer blows directed at the country's moral and political centers can the regime hope to be toppled and replaced. The Wehrmacht must seek decisive battle early in the game when Soviet replacements are minimal.

**A.R.E.A. RATING SERVICE**

As outlined in The General, Vol. 11, No. 5, Avalon Hill offers a lifetime service whereby players are rated in relationship to other game players. Return coupon now, along with the $2.00 lifetime service fee for complete details on the Avalon Hill Reliability Experience & Ability Rating.

- I don't object to having my name and address printed in The General with the rating lists. I rate my self:
  - A—an excellent player
  - B—a good player
  - C—an average player
  - D—a novice in my first year of gaming
  - E—a beginner
Letter to the Editor ...

Page 29

The Qualifiers route a necessity. A person could play in their own league and get a high rating, but sooner or later he will be flooded with challenges from better players because he is near the top. The top 10% of chess players are one of the competitions that reads the GENERAL. Other than that, the Qualifiers route is needed to get an idea of how the person is doing against competition. I feel that a person can pick an opponent who is at the same degree of skill as himself.

An added bonus to the rating service might be a tournament. At the end of a specified time period (a season, if you will) the person would have the option of entering the Avalon HIlosport tournament. There would probably have to be one game a week. Really, if a person could only play one game, then the tournament is made uninteresting to one game as possible. This is where challenges are difficult to arrange. If players declined entering the tournament, they still would be delayed with challenges. Some player might decline because they want to make a complaint, perhaps getting the person tossed out of the rating service. Part of the rating should be a big success rating, not only for the person individual to play against.

The AREA rating service should be a big success. It would be a success rating. There are a number of players who are not good at wargaming and would lose.

Dear Sir.

Time as it may seem, Origins of World War I were at a completely young stage. Seán Hagan wrote in the Avalon Hill line. Its main idea, the diplomatic conflict of 1939-35, provided a well-rounded aspect of the wargaming to the best.

With this venture in mind, the Historical Objectives Chart becomes the main focal point of action, leading to a stimulating new understanding to the conflicts arising in this situation. Germany's position of powerful influence allows the situations to be viewed as the viability of the growth of Nazi control.

The control of Austria is perhaps one of the greatest ambitions of the Nazi movement. However, the entire situation changed after an unexpected movement to revolutionize the Austrian government failed, and with the Italian invasion still at bay, Hitler staged his retreat in the face of the invasion. As a result, by the end of 1936, Germany and Italy had come to an understanding over Austria.

Austria then came into a difficult situation. Von Schuschnigg, who had an independent eastern position in Austria, was now agreed to bind by the Austrian constitution. The east, although independent, was a "German State." Schuschnigg had hoped that his move toward the west would not be prevented by Germany or the Naziization of his country. This was not to be the case.

Hitler, after this action, sent troops to the Austrian border. Left with no help from the west, Schuschnigg was forced to resign. Austria was annexed into German on March 12, 1938. Schuschnigg was sent to prison in Germany. The Austrian government was dissolved and the Austrian people were now under Nazi control. Hitler had again succeeded, and he was free to move on.

We are then left with the question of the possible effects of these actions on the game. Indeed, Austria has a precise bearing to the effects of war and to the diplomatic situation changing the democratic system of the game. The chart shows the appropriate situation as the game begins.

Therefore, in the light of the question of independence, the course of events may influence the game's decision. In other words, the game may have an effect on the people playing. There is no question that the game should determine whether to become pro-Nazi or remain independent.

Dear Sir,

These days I feel that the trend is to buy a wargame, play it once or twice, then put it in your closest closet. This seems like a waste of money and effort. If a person has time to read the rules, campaign analysis booklet and scenario cards to PANZERBLITZ, play a game, then probably consider playing to have forgotten the rules. There is nothing to do but focus the entire time on the game. I found that playing PANZERBLITZ again, or, when playing other games, the players are more likely to play THE BATTLE OF THE BULGE or RAMzes II rather than to reassess yourself with PANZERBLITZ.

But I believe that the GENERAL turns many of the players into better players. With content, variance, historical data, game ratings, etc., people become more interested in a variety of games. I have been one of those who would buy a game, play it once, then buy another game. The GENERAL has truly been a great help to me and I am glad that it is still available.

Dear Dan,

Coronation, California

Ed. Note: Although we are hardly likely to come out with any new player, we do agree that fine players can always find more use than the players who are interested in playing, even due to a lack of experience and training. Also, the quality of the game and strategy, there is a need for the GENERAL.

Dear Sir,

In the Jan-Feb General, J. R. Jarvis’s article on British strategy in Scenario #1 of 1776 has a small inaccuracy which could have, depending on the players involved, a far-reaching effect. He states, with regard to the American fires at Ft. Ticonderoga, that ‘The defenders cannot escape, nor can they be reinforced.’ The latter statement is correct, the first is not. In accordance with the Question Box rating in the Sept-Oct 1974 General, the Americans can leave the field via their battered boats.

Mr. Jarvis has written the article. The British do not wish to lose the field, but it is done in a way that makes the victory clear to the reader.

The question is, where do the Americans go? One can neither be captured at the end of Lake Champlain or transported elsewhere. Either one of these positions is an open invitation for the British from Ft. Ticonderoga to crush them. Instead they are going to be transported to Ft. Crown Point (the fort in front of the field) and move the batteries, 4th and 6th and supply unit to K.K.B. K.K.B. is the optimum choice because it has been found in one game that the full unit must strongly forced march of 6 MP, a highly dangerous procedure. Thus, if the British decide to follow the plan, they must be cautious. It is, after all, a forced march and unsupplied and attacking odds of 1/5 (5/5).

Of course, the British can decline to pursue, but then 0 points will be given. Will be in line with my findings of Canada.

As a British do follow and attack, and if the Americans can get a 1+ or more through the matching of the Tactical Cards, they might win the battle decisively, and should at least be able to inflict casualties disproportionate to their size.

The loss of a major portion of the St. Johns’ can prove disastrous to the British game plan.

Charles Starkes
West Stockbridge, MA

Ed. Note: A plan always looks different when seen through another man's eyes. For example, if the British are attacks, the offended boundary maze is not allowed to force march when Supply is not allowed to force march.

Dear A.H.

I’d like to compliment you on the production of 1776. I have most A.H. games and feel that this one offers some top quality. The advantage of multiple combat and the new tactical card system has really put the wargamer on a single track; he can’t sit back on his easy chair with his cardboard counters from a safe distance. There, he must get into his box and fight and the reader can easily figure out how the battles were fought.

Some important points were made in the game. One thing that is interesting is the action against the British, which can strongly affect the game. It is, after all, a forced march and unsupplied and attacking odds of 1/5 (5/5).

One of the more interesting things about the game is that the British can pick a suitable SNP opponents. Many players, including myself, are hesitant to play against opponents that either cheat or skip an out of game in progress, although I think that those types of movement. Gone will be the days of anxiously waiting to see if your opponent's move or skipped point.

The situation of a young, ambitious wargamer in an isolated area. He plays in places and has no one to discuss strategy with, except other players who he cannot make his name known in wargame circles, even when he writes brilliant articles for the GENERAL. Being removed in the area, the A.R. rating service is started. Modest as he is, he puts himself down as an average player. In the money that fall, he wins the A.R. rating list by leaps and bounds. Soon he is near the top, and is finally noticed and recognized as someone who is (having fraud) a very good player by anyone who glances at the list. A rather dramatic portrayal, but it goes the point across.

Dear Don

Pancere Blitz fans, or anyone who has recently read Osprey Archives, should look into Al Stewart's book, A Past, Present, and Future. I found the first cut on side two is entitled "Roads to Revolution," a fascinating story of the war leading into the blitz. However, the book is only a few minutes long, so I can only recommend the book for a wargame enthusiast. Perhaps the best part of the book is that it gives a true picture of what life was like in the blitz. A good read for anyone interested in the blitz.

Craig E. Ransom
Baltimore, Md.

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**READER BUYER'S GUIDE**

**TITLE:** CHANCELLORSVILLE '74 Edit
Division and Brigade Level Game of the Civil War Battle

CHANCELLORSVILLE is the 17th game to undergo analysis in the RBG and fared well with a cumulative score of 2.6B—the 6th best such rating to date. However, it proved to be a 'middle of the road' game as far as the ratings were concerned. If it ranked no better than 3rd or worse than 9th in any of the individual categories. The best performance came in the "Completeness of Rules" category where it proved 3rd best in the line behind AFRICA KORPS and STALINGRAD. This rating appears valid based on the scarcity of questions pertaining to the play of the game. The low point for the game was the Play Balance category—a fault which is easily corrected. Some misleading playtest reports led us to change the victory conditions for the Union from a 3:1 ratio of combat factors to 4:1 at the last moment. This change was probably too much too soon. Requiring the Union player to have a 3:1 factor superiority at game end goes a long way towards improving the play balance.

Many of the comments I've heard about the board are derogatory due primarily to what they classify as a garish color scheme. It is a point of view this reviewer does not share. In my opinion, the highly playable, ambiguity free board is a big plus. Unfortunately, it was flawed by the mislabeling of the U.S. Ford—even though this error is pointed out in the body of the rules.

The CHANCELLORSVILLE game system is an excellent one—realistically portraying the need for a position in depth and mobile reserves. The confusion push' combat system lends itself to extremely exciting play with the fortunes of divisions shifting every turn from near annihilation to stunning victories. Unfortunately, the Victory Conditions are not on a par with the excellent game system. No accounting is made for maintaining lines of supply, leaving the possibility of a totally surrounded, entrenched Confederate force claiming a victory.

But CHANCELLERSVille remains an excellent game, especially with adjusted Victory Conditions to aid the Union cause. A playing time of 3 hours places it in good stead as a fun ingredient in any afternoon game fest.

**THE QUESTION BOX**

ANZIO:
Q. The Basic Game victory conditions oft' ties (C.15-A), but only 8 are listed. What is the ninth? A. Axis
Q. Reference rule D.2.C. what if some Axis attackers have air superiority, and some don't across the same defended? A. If at least half of the Axis units attacking enjoy air superiority, then the entire attack would be on that basis. However, if less than half of the attacking units (regardless of size) do not have air superiority, the entire attack would not.
Q. Does KS2 contain a river? A. No
Q. Does the Italian Centauro armored division (1-6) have an attack factor through a rough terrain hex-side? (ref. rule D.4-A.1)? A. No
Q. Reference rule D.3-D.2, if the Allies interdict a hex (not a unit in that hex), would a unit starting its turn in that hex lose strategic movement? A. No. The unit would have to pass through the interdicted hex, and starting its turn in it is not considered passing through.
Q. Reference rule E.R.B. would the German 4 Paria division enter Jan. 1944 if for any reason 2 Paria is not available to be withdrawn (for example, it might have been destroyed)? A. No. 2 Paria must exit for Paria to enter.
Q. Reference Rule B.4.C.12.b, if a unit is defending on a river hex, and is attacked and destroyed, resulting in breakthrough movement, can the attackers reverse movement to cross the river and move off on the other side? A. No
Q. In the first edition, each of the 3 German erust divisions may be exchanged for 3 replacement counters when at full strength, or 2 counters when inverted. Is this still true in the revised game? A. Yes. The exchange can be done at the start of the German turn, before moving. Remove the entire division of divisions in question and replace each one with 2 or 3 infantry replacements. These appear in the usual manner, not at the location from which the erust division was taken, unless that was a replacement entry point. If the erust divisions were isolated, the exchange could not occur unless and until the turn after isolation was lifted. The 3 erust divisions enter the game Aug. III, 1944, only in the two stronger OOBs.
Q. Can the erust divisions themselves be rebuilt using normal replacements? A. Yes. Apart from the option of exchanging them for replacements, they are like any other infantry units.
Q. Is it forbidden to retreat "forward," that is, "behind enemy lines?" A. Not specifically, although Advanced Game Supplementary Rule 4.C should have that effect. Apart from this, there are several reasons why there is no such rule; it is not always obvious what constitutes such a retreat; it could conflict with the retreat through zone of control rule; such retreats are not always unrealistic.

D-DAY:
Q. I have seen conflicting answers on the matter of Allied second landings in D-Day. Once and for all—were Allied units in subsequent turns of an invasion land on a coastal hex in enemy zone? A. No, but they may land adjacent to German units if fortresses or rivers block the enemy zone. The same interpretation applies to control of supply on the beaches.
Q. A unit attacking out of a fortress or across a river must attack all adjacent enemy units. But what if those adjacent units are in a fortress or separated by yet another river? A. In that case, the attacker must attack only those units which block a route on the attacked hex and are adjacent to the attacker.
Q. Do paratroopers landing by sea during an invasion count against the infantry initial lift capacity? A. Yes.

JULIUS:
Q. May Capital ships fire "over" (or through) Light Ship counters? A. No.

**THE GENERAL**

**GENERAL BACK ISSUES**

General back issues are selling out faster than we can restock. If you can't find the issue you're after, try contacting the following distributors:

- PAX
- AMP
- AMD
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**Good Old School Daze**

But I got a
tear paper and
tests to study
to take a
test. Are we
to go out
to the town
for the final
exam? We
are not
allowed to
leave the
base.

Looks like I'm
go ing to miss
my flight
at the airport.

**Hey Y'all, What to Play a Little Bitch?**

**Haven't You Ever Been Caught Day Dreaming About the Perfect Plan?**
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The solution to Contest No. 66 was provided by Anzio designer Tom Olsen. It featured a commando raid with 82/505 and 82/325G at Y66 (B). A roll of 1-3 is necessary to permit these two regiments to advance next to the German unit at Y64, for a 4-1 attack (using one of the 3 Allied air factors). This is an automatic victory, as a 4-1 is certain to destroy the 1 step of the German eratz unit.

THE GENERAL

James Stahler made it two wins in a row in the IGB mini-tournaments by taking the honors in the recent AFRIMA KORPS contest with 4 victories. The next IGB event is scheduled for September 13 when the highly popular Richthofen's War Demolition Derby of Origins I fame will be repeated. All gamers in the area are invited to drop in at 1501 Guilford Avenue for the action. While here, you can look over the half price supply of damaged games and enjoy competition of all sorts.

The Interest Group Concept is continuing to spread to cities across the country. The UTA Historical Simulations Society meets every Friday night in the UTA Student Union Building in Arlington, TX. Interested parties should contact John Trice at 7525 Laurie Dr., Ft. Worth, TX 76112.

Interest Group San Francisco under the direction of Michael Peterson meets bi-monthly at the "Gardens" Recreation Hall, 1919 Alamedade las Pulgas, in San Mateo, CA. Among their plans for the coming year are a Bay Area tournament based on the PWA-AH 500 structure of Origins I. Mike can be reached at 415-574-6998.

Yet another Interest Group goes under the name of Suncoast Wargaming Confederation and draws members from Pinellas, Hillsborough, and Manatee counties in Florida. Contact Steven Fellerman, P.O. Box 11694, St. Petersburg, FL 33733.

Tom Olsen, the hyperactive devotee and designer of ANZIO is offering a FREE Errata sheet to all Anzio players who request same and include a stamped, self-addressed envelope for the reply. Interested parties can contact Tom at his 1200 High Ridge Lane, Santa Barbara, CA 93103 abode.

The A.R.E.A. system continues to grow slowly with a total player pool now in the neighborhood of 800 players. 86% were in favor of printing the "Top 20" listing of A.R.E.A. members in each GENERAL and 71% liked the idea of the GENERAL sponsoring A.R.E.A. pbm tournaments. We agree and think that it will give the hobby a much needed direction so we will implement both suggestions at the earliest opportunity. However, neither project can begin until the player pool builds up a reliable rating. Once enough players have reached the Provisional Level (10 rated games) in the ratings we will begin these projects. In the meantime, if you are not an A.R.E.A. member you should try it out—especially if you plan to do any pbm gaming at all.

The new edition of the AFRIMA KORPS rules are now available. However, as the changes involved with the new edition are limited to a one page appendix of questions and answers we do not recommend their purchase unless you are really turned on by having the latest version available. If you do order them however, be sure that you specify the new 1975 edition. The rules manual sell as a set for $1.25.

A.R.E.A. members who submit requests for opponent matches via the A.R.E.A. system should remember that they don't get a reply without a stamped, self-addressed envelope.

Philip Roth, author of Goodbye Columbus which won the 1960 National Book Award for Fiction, was photographed for the cover of a recent book with an Avalon Hill game clearly discernible in the background. This is just a little more evidence of the rising popularity of wargaming. The game, seen beyond Roth's left knee, is Gettysburg.

Infiltrator's Report

Avalon Hill Basketball Strategy League 1975 Champion Dennis Yost (left) is being congratulated by League Commissioner Gary Sipes.

Dennis Yost, pictured above, swept the final round play-offs of the Avalon Hill Basketball Strategy League by besting Paul Oldaker's Houston Rockets team in 3 straight games. Yost, who finished second in regular season play in the 10 team league, edged Don Greenwood's favored Knick team in overtime to win the preliminary round before outclassing the Rockets. The Brave's play-offs victory garnered Yost a first prize of $50.

The German infantry unit is now out of action, so no Axis ZOC blocks Y63-Y65. The British 46th Division moves Y63-Y62, attacking the German unit at Y61 at 4-1 (with another air factor). This is also an AV. There is now no barrier along the South End facing Taranto, so 201 GDS simply moves up Route 7 to Potenza.

Contest No. 66 winners who survived the inevitable luck of the draw were: P. O'Neil, Baltimore, MD; J. Platt, Pittsburgh, PA; L. Bucher, Charleston, SC; W. Inman, Tuscaloosa, AL; R. Reynolds, Houston, TX; J. Anderson, Buffalo Lakes, MN; F. Halfferich, Houston, TX; D. Downing, Albuquerque, NM; D. Sweeney, Jr., River Vale, NJ; and P. Flint, Montclair, NJ.