

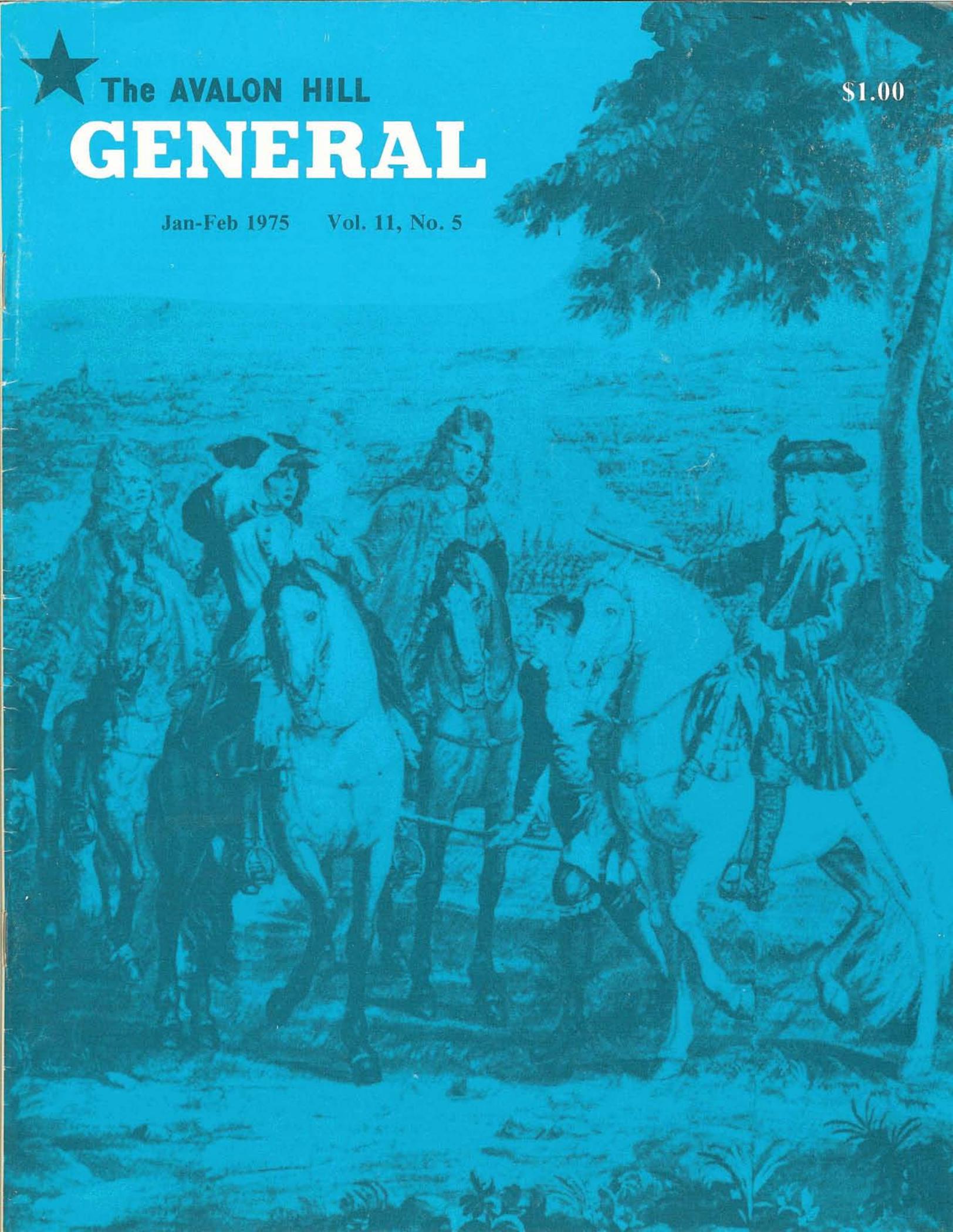


The AVALON HILL

GENERAL

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★ The AVALON HILL
GENERAL
 The Game Players Magazine

The Avalon Hill GENERAL is dedicated to the presentation of authoritative articles on the strategy, tactics, and variation of Avalon Hill games of strategy. Historical articles are included only inasmuch as they provide useful background information on current Avalon Hill titles. THE GENERAL is published by the Avalon Hill Company solely for the cultural edification of the serious game aficionado, in the hopes of improving the game owner's proficiency of play and providing services not otherwise available to the Avalon Hill game buff.

Publication is bi-monthly with mailings made close to the middle of January, March, May, July, September and November. All editorial and general mail should be sent to the Avalon Hill Company, 4517 Harford Rd., Baltimore, Maryland 21214. One year (6 issue) subscriptions are \$5.00. Please send checks or money orders only. Not responsible for cash lost in transit. All subscriptions sent via third class mail. Airmail and First Class delivery must be prearranged with the subscription department at additional cost. No paid advertising of any type is accepted. However, news of importance to the wargaming community is printed free of charge and is solicited.

Articles from subscribers are considered for publication at the discretion of our editorial staff. Articles should be typewritten, double-spaced, and embrace the tenets of good English usage. There is no limit to word length. Accompanying examples and diagrams should be neatly done in black or red ink. Photographs should have caption and credit line written on back. Rejected articles will be returned whenever possible. In any and all cases, Avalon Hill accepts no responsibility for unsolicited material. Authors of published articles which receive favorable response from the readership will be remunerated with free merchandise of their choice.

Back issues are available for \$1.00 apiece. A complete listing of those still in stock can be found in Vol. 11, No. 4.

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Avalon Hill Philosophy Part 48

We would be remiss if we did not thank all of you who wrote in congratulating us on the quality (and quantity) of the new games. We wish we had the time to answer each of your letters personally but such is not the case. Special thanks are in order for the hundreds who expressed their confidence in A.H. products to the tune of \$50 orders. We hope the games brightened your Christmas as much as your words of praise did ours.

The great success of the mail order line has guaranteed that you'll see a similar offering from us next fall. It has also ousted one of its number by its very success. *Panzer Leader* has been just too overwhelmingly received to maintain as a mail-order-only item. Its popularity has even surpassed that of *Third Reich*. Therefore, beginning in February it will be transferred to the retail line as our spring release and you can begin looking for it in local stores. Do not hassle your local dealer for the mail-order-only titles though because he'll be unable to stock them. Eventually, two of the present retail games will be dropped into mail-order-only status to take its place. In addition, we hope to increase the mail order division by 2-4 titles next fall, and will keep you posted as to progress along those lines.

The *Chancellorsville* special offer of a free set of original version counters to the first 500 purchasers of the game has long since faded into history. But that was so popular we decided to institute another "bonus buy". To all purchasers of *Jutland* in the next month who request them, we'll include a free set of original version *Jutland* rules and manual. This offer is valid *only as long as the supply lasts*. If well received, we may follow up this offer with a similar one for *Anzio* next issue.

Response to the announcement of ORIGINS I (our first wargaming convention) has also been quite flattering with interest running high from many quarters. A number of new events are in the process of being added sponsored by a variety of companies. We've also made arrangements for a unique line of awards for each of the competitions consisting of hexagonal plaques. We believe these will be a long remembered and instantly recognized keepsake of a fine effort in a great event. We'll keep you informed as new plans are finalized.

But all was not roses. The new detailed A.H. catalog which we promised you within 2 weeks of receipt of your last GENERAL was delayed due to press of more important matters — such as keeping up to date on shipping the unexpected huge demand for our new games. That took manpower, manpower we really didn't have. Everyone, from the vice-president on down was pressed into service over in the mail-order department. Thus, the people who usually prepare the catalog didn't have time to prepare the catalog. The effect of this delay means that many of you will be getting the catalog when it is already obsolete price-wise. So when placing orders on the new order form stapled within the catalog we suggest you follow the instructions given and add 10% to the purchase price of all parts. Any overages will be refunded. All the bookcase games

were raised to \$10 and all the flat box games raised to \$8.00 with the exception of *TACTICS II* which remains at \$5.00. It will probably take a while for these price increases to be reflected at retail outlets but they are inevitable and we did warn you they were coming. We apologize for the colossal inconvenience caused by all of this but believe us when we say your disappointment is no greater than our own.

The games are not the only items to feel the bite of inflation. We're sorry to say that the *GENERAL* has held the price line for the last time. Beginning with Volume 12 new subscription rates will go into effect. After 11 years of operating on a \$5.00 fee constantly declining in buying value while quadrupling the size of the magazine, we've been forced to give way to rising costs. Expected postal rate hikes in the coming year were the last straw. Therefore, as of May 1st the going rate of a subscription will be \$7.50 per year with a two year subscription available for \$12.00. Single copy and back issue rates will increase to \$1.50. All \$5.00 subscriptions received after May 1st will be treated as 4 issue "trial subscriptions". Renewals received before May 1st will receive the full 6 issue extension. A \$10 subscription before May 1st will earn a 12 issue renewal and so on.

Incidentally, every month we are bombarded with complaints about the late delivery of the magazine. You're in the same boat everyone else is — everyone's magazine is mailed on the same day — often in the closing weeks of the second month. Thus, it is a trifle unrealistic to get one magazine on February 28th and expect the next one to be on time a week later. It takes a good two months to get one of these things ready and if one issue is late you can pretty much expect the next one to be also. The mail order line has cut in on everyone's time around here and it is going to take a while for us to get back to normal. As a case in point, the question and answer mail hasn't been done in 3 weeks and will probably sit a while longer before we can get to it. Putting out 7 games at once quite naturally multiplied the volume of this mail many times. We plan to organize all the *Third Reich* and *Panzer Leader* queries into an article format for the next issue so do us a favor and hold off on your questions until then. All of the commonly asked questions will be covered — even many of those already answered in the rules. If you still have questions after this presentation then feel free to send them in.

The December *General* proved to be our most popular issue yet with a 2.64 rating, despite those who disliked the predominance of *Panzerblitz* material. This was due in no small part to the efforts of Larry McAneny, Bruno Sinigaglio, Jim Hamilton, and Lew Pulsipher who worked so hard to make it a success. The ratings on the 1200 point maximum scoring system were as follows:

The Pieces of Panzerblitz507
 Beyond Situation 13256

Continued on Page 28

WATERLOO - The 1704 Version

THE UNFOUGHT WATERLOO

by Robert S. Sledge

Louis XIV of France was the child of luck, born unto the right nation at the right time. For the first time in many years France was at peace, within her borders and with her traditional enemies—the Hapsburgs. Louis' predecessors had built roads, canals, and bridges, making France's communication system the best in Europe. And what it lacked in a common language and political system, he more than made up for with the prestige of the Crown. He made his people feel that he—the King was somehow a symbol of their common "Frenchness". The greatness he inspired was reflected upon them all; and it is with his usual lack of modesty that he declares 'L'etat c'est moi!' (I am the State).

He expanded the Crown's influence at the expense of the nobles, who had been so troublesome in the past. Depriving them of their political function, they were left with only their social and economic privileges and their military careers. Yet they crowded around the monarch at his splendid new palace of Versailles; acres of beautiful gardens surrounding a palace that housed a court of 10,000 nobles and their families, followers, and servants. "So completely did Louis make Versailles the center of French social life that everything else in Europe seemed provincial, from the private country houses of the French nobles, to the courts of all other monarchs. The proper standard of sophisticated behaviour for all of Europe was set here; how to dress, what to read, what games to play, and what music to listen to. At every court with a pretense to gentility the master and mistress would ask what Versailles did before deciding."

Yet this proud picture of France and Louis XIV at their height of power and glory had one dangerous flaw. Louis was ambitious; ambitious to a fault. Not content with the natural borders of security on the Rhine and the Low countries, he dreamed of expansion in Italy, India, and the New World; and his dream was answered by a disruption in the Spanish line of succession. Louis' brother in law, Charles II of Spain, had no heir to claim the title of the vast Spanish possessions that included most of South and Central America as well as the prosperous Spanish Netherlands. In his will, Charles II proclaimed that Louis' grandson Philip would obtain all; and when the old man died in 1700, Louis could not resist temptation; he promptly announced Philip V king of Spain. Almost immediately England, Holland, the Empire and the German states with the exception of Bavaria and Cologne, joined in a Grand Alliance against France and Spain. It was 1701. The war of the Spanish Succession was on.

It is best to step back now and get an overview of the opposing powers. France and Spain in 1701 were not unlike Germany and Austria in 1914—they had interior lines of communication and could strike outward in several directions; Lowlands, Rhineland, Italy. The French army was by far the superior and played a role to its Spanish ally much the same as Germany was to play for Austria in the First World War. Louis XIV in his autoeracy could plan the campaigns in all secrecy without domestic interference from politicians and special interest groups. He was a rather capable strategist, and lucky in that he had a good Minister of War



(Louvois) and several excellent marshalls; Villars Vendome, and Villeroy. The army was uniform, highly disciplined, and filled with an elan from past success.

The Allies, on the other hand, were loosely joined together by necessity. They feared the dominance of France but that did not keep them from jumping at each other's throat. On the seas, the English and Dutch fleets were by far superior; but the Mediterranean was still solidly French. For that reason supplies and communications to the Empire were tenuous at best. English and Dutch troops were a reliable formidable force, those of the Empire adequate, and troops from the German states often insubstantial. The routes by which they could pierce the French frontier were not so numerous as first seems evident. An army of 60,000 to 100,000 men in those days needed constantly to move through fertile lands. If supplies and dry forage were to be brought along, the best way was by river or canal. As a matter of fact, the great rivers of Europe were the railways of war. Thus every major juncture of rivers and canals were barred by elaborate fortresses. And though the Allies had a superiority in numbers, France began with a windfall advantage;

the vast Fortress Zone (with the key exception of Maestricht) in the Spanish Netherlands was turned over to them before hostilities began.

These fortresses were marvels of modern engineering. Thick walls and palisades guarded by a large ditch, converging fields of fire for the guns, and storerooms vast enough for a years supplies combined to give them the impression of a land battleship. If resolutely defended by its garrison, a fortress could withstand an enemy force 10 times its number for a year or more! In addition to the 30 large fortresses the French controlled, Louis had Vauban, the chief engineer of his day, construct a continuous series of smaller fortifications along a 70 mile crescent from Antwerp to Namur. These "Lines of Brabant", finished just in time for 1701, with their entrenchments, palisades, and inundations, fairly bristled toward the enemy. They were in fact a miniature Maginot Line. If properly backed up by a field army, it was deemed the enemy would suffer no less than 10,000 casualties in just breaching the line.

This 18th century war was curiously like no other in the history of Western man. We might almost call it civilized. The previous generation of soldiers in the Thirty Years War were more often

than not just a disorderly band of thugs roaming about the countryside. Often their whole family would travel with them; and if the opposition paid more, it was no major obstacle to join the former enemy. Brigandage and slaughter of innocent civilians was the order of the day. Between 1618 and 1648, eight million Germans disappeared from the face of the earth. It was warfare at its worst.

The soldier of 1701 on the other hand was a professional. Highly disciplined and well trained, his life was valued by his officer and government alike, mainly because he was so expensive to train and provide for. Issued with a percussion cap smooth bore rifle, the soldier could expect to fire effectively no more than 75-100 yds. His chief tool of destruction was often the bayonet, and since a good rifleman could get off perhaps two shots a minute, things were usually decided at close quarters. There were no higher formations in those days such as a division or corps, even brigades were in the experimental stage. And in the case of health care, his best medicine if wounded was luck; even a minor wound could prove fatal because of complications.

The cavalryman was the more dashing of the lot, often a person of high birth. His main weapon was the sword, except in those units that used a lance. Pistols were as yet cumbersome and mostly ineffective. In addition to scouting ahead as the "eyes of the army", he could expect to reconnoiter the enemy's line, and in a cavalry engagement—it was sword to sword combat with the intention of driving the other from the field. Against infantry he was best employed when they were losing cohesion; a cavalry attack on faltering infantry could be devastating, a cavalry attack on unbroken infantry could be disastrous. Timing was the key to the matter. The cavalryman could also dismount and act as auxiliary infantry, not often employed, but done if need be as by the French at the Battle of Ramillies (May 23, 1706). The least desirable duty was massing behind friendly infantry to keep them from retreating, even if they were being cut to pieces by murderous gunfire, as at the storming of the Schellenburg in 1704.

Artillery of the day was becoming more mobile, yet its effect was still less than perfect. Most often its position was fixed at the beginning of battle and then left stationary throughout. Scenes of caissons and guns bounding along to an endangered section of the line were a thing of the future. Grape shot against massed infantry could be devastating, but only if the gunners were backed up by sufficient

infantry. The really effective pieces of war were the big guns, "Hawbitzers" and mortars, used in reduction of fortresses. At the siege of Bonn, the Allies used 90 large mortars and 500 smaller guns, some with 6 and 8 inch bores, to fire day and night from April through May, until the fortress and town lay in ruins. It was exactly this kind of siege warfare that the chief strategists of the day recognized as the proper way to conduct war. This or that fortress might fall, and slowly the army advanced—protecting the besiegers from the opposing field army. To out maneuver the besieger and threaten his lines of communication could suspend a siege and cause him to retire. A pitched battle between field armies was out of the question! Especially since professional soldiers were so costly. To paraphrase, "War was too important to be left up to the generals, it must be waged by gentlemen".

But this very kind of siege warfare had a decisive drawback; to besiege a fortress meant to divide your forces and lose all offensive initiative. Even in defense a marshal had to spread his troops thin to garrison all the threatened sectors. Only one man in 1701 detected this flaw with clear-sighted resolve—and in the process left his mark upon history; John Churchill.

The Duke of Marlborough (Churchill) was a veteran of the previous war with France, but as yet had not made his mark as a commander. But in that very greivous year with the French massing upon the borders of Holland, the Dutch made a bold decision and accepted this English general as Commander-In-Chief of all the forces in the Northern theatre. He had very strange ideas for a general of his time; nothing less than the destruction of the French Northern Army in the field, and the humbling of Louis XIV would do. In this contest of world wide proportions, he was every bit up to the matter of defying the Sun King.

At once Marlborough seized the initiative and threatened to pin Marshall Boufflers 60,000 troops against the important Allied fortress of Maestricht. A decision was fast drawing near—battle or retirement? The French chose to retire. Always he forged on with the same resolve to bring a decision by arms to one great battle; but the recalcitrant Dutch opposed one of his daring plans after another. They were afraid to see their great army, Holland's only defense, wither away in a blood-drenched few hours, such were battles in those days. Within the space of four or five hours as many as ten to twenty thousand men on each side could be

casualties. But because of these very fears the French were holding their own in the Low Lands while actually winning in Italy and the Rhineland. With the advent of Bavaria joining the French all of Germany and the Empire were on the verge of collapse. It seemed as if 500 years of Imperial history were about to crash down in ruins.

Marlborough quickly ascertained the situation and in an epic march, cut his ties with the Channel and marched at the head of 20,000 British troops into the very heart of the continent. The French were held in suspension on all fronts, mesmerized as Winston Churchill calls it, "by this scarlet caterpillar wending its way across the face of Europe."

Marlborough gained a bridgehead across the Danube at the Schellenburg by tactics more conventional to our times than the 18th century. Out of each battalion, 130 men were handpicked to lead the attack as, in what today we would call, "shock troops." They literally raced ahead of the main army at an amazing speed, 15 miles on bad roads and then to a battle at 6 p.m. as dusk was falling. This was unheard of! The defenders held them off in vicious fighting, but this was Marlborough's intention; the enemy's attention was so riveted by this daring and furious attack that they weakened the rest of their front. Before they could remedy their mistake, Allied German troops crashed through the weakened sectors, annihilating the defenders. Out of 14,000 men, barely 5,000 reached safety.

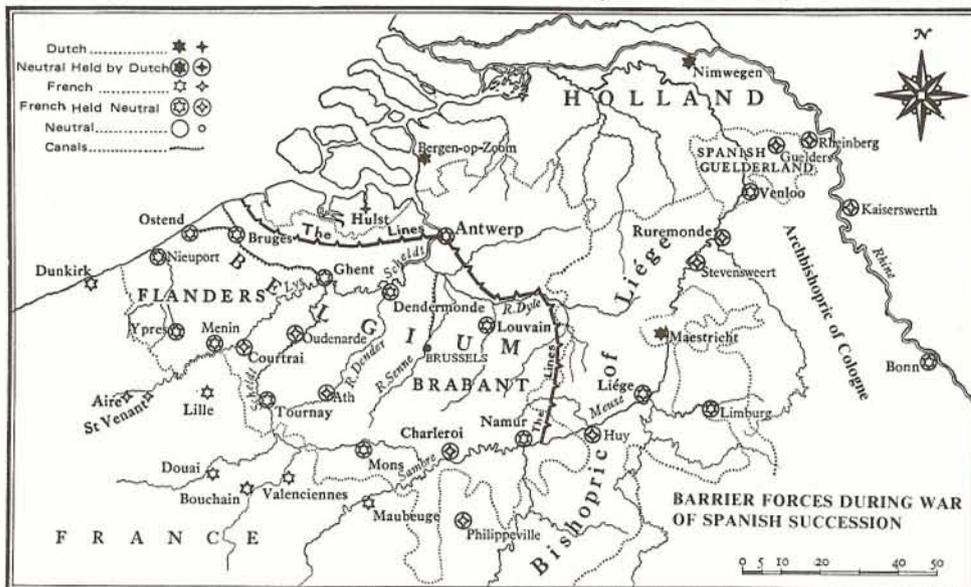
This tactic of dispersing the enemy by a violent secondary attack, followed by a piercing main thrust on the weakened sector was used successfully by Marlborough in all his great battles. He pinned the French and Bavarians to the hills at Blenheim (August 13, 1704) and then crushed their center with an infantry assault followed by waves of cavalry that dispersed behind the enemy's rear, cutting off retreat. Of 60,000 French and Bavarians on the field that morning, barely 16,000 made it back across the Rhine.

The Unfought Waterloo:

Now we return to the Low Countries and the cockpit of war. It is summer, 1705. Marlborough by intricate maneuvering just outwitted the French field army under Marshall Villeroi and pierced the Lines of Brabant. They said it would cost 10,000 Allied casualties. It costs less than 100.

Even after this remarkable achievement the Dutch marshalls are afraid to let their magnificent army do battle. Days creep by inexorably. The field Deputies finally allow Marlborough "three marches without summoning a war council." He hopes by these three marches to make a battle inevitable—even for the Dutch. In scorching hot weather the Allied Army swings down the road, clouds of dust marring the sky. Cavalry patrols clatter through villages and fields. On August 15th they pass through Corbaix, on the 16th to Genappe and the headwaters of the Dyle. The following morning they are confidently heading north on the Brussels road toward the small village of Waterloo.

Villeroi and the Elector of Bavaria, encamped between Louvain and Brussels watch this movement with amazement. He had marched clear across and around their front and is coming on with supply and siege trains. This is madness! He has cut his line of communication with Liege against all rules of military law. 'We can attack this, but it is risky. Well, he is coming on with a siege train—surely he must be heading for the fortress of Dendermonde. So we will send Crimaldi with 18 battalions and 12 squadrons to support Col. Pasteur at Waterloo... and await events.'





Marshal Villeroi as depicted in a painting by Hyacinthe Rigaud.

The Night of August 17-18; the confederate advance guards brush aside Col. Pasteur before help can arrive. Their infantry advancing by night toward Brussels, crowd the high road. Cavalry are like shadowy figures emerging from the misty dawn, to "amuse the French army."

Surely Marlborough is trying to maneuver toward Brussels. "I confess to Your Majesty that the choice is very difficult, because a single false step draws with it the loss of the Low Countries. To march toward Brussels is to abandon the position which up to this time has saved Louvain, to stay here is to lose Brussels and the larger part of the country as well. To divide the army is impossible. It is necessary to choose... between the loss of Brussels or of Louvain, there being no middle course."

Well we must sacrifice Louvain!

The order is hardly given when the whole scene is suddenly transformed. A column of hostile infantry is marching upon the front—it is English infantry. They are not after Brussels because they come from that quarter. Masses of infantry debouch from the Forest de Soignies. They are about to do BATTLE!

"For all our vigilance we are as astonished as Marshall Tallard but a year ago at Blenheim."

Our line drawn up around the Ysche stream numbers but 76 battalions and 127 squadrons (including Grimaldi who is too far afield to be of much help). The enemy appears to be superior in all forces (in fact 100 battalions and 162 squadrons) and has by his movements made us dangerously overextended. Not the least of these is a large force of the enemy upon our right flank, who threaten to turn us and march upon our rear. If they succeed in this, all hope of retreat is doomed. We consider retreat but the dangers of a flank march and rearguard action are too great. So we fortify the villages and wait.

At this point there occurs a scene rarely witnessed in the annals of war. The Dutch Marshalls pronounce that the confused and numerically inferior enemy are by far too powerful to attack. "Murder and massacre," they mutter as they stand around in a council of war. Try as he will, with threats, logic, and pleas, Marlborough cannot shake them from their obstinance. Shamefaced but stubborn, they persist until what was a weak line of desperate enemy, becomes a fortification. There is no battle. It remains for another generation of soldiers, fighting for different reasons to make the name Waterloo immortal.

Conclusion:

An Allied victory in August 1705 would have smashed the French forces in Belgium. It was too late in the season for fielding another French force there. The campaign of 1706 could have well been the last as the Allies plunged on toward Paris through the fertile plains of Artois and Picardy. Instead they were faced with 8 more years of bitter conflict and an indecisive peace. Hostilities would cease mainly from mutual exhaustion.

THE UNFOUGHT WATERLOO

A Game Variant using the WATERLOO board

All WATERLOO rules except those noted below remain the same.

STACKING: Units may stack only two high (exception, see artillery rule). In a stack of two, only one unit may defend; if it is eliminated both go. Artillery present in a stack may add to the defense of the stack above and beyond the "only one defending unit" limit.

TOWNS: (such as Nivelles and Genappe) Infantry add 2 to defense; cavalry add 1 while in towns. These additions are per unit, not per stack.

ROAD MOVEMENT: On main roads, units add two extra movement factors. On secondary roads (dashed lines) they add one extra.

MOVEMENT AFTER COMBAT: When the defender must abandon a square due to elimination, exchange, or retreat attackers may move up to two units into that square regardless of terrain and enemy zones of control.

ARTILLERY: May stack upon two other units in excess of the stacking rule and add to the stack attacking factor. Only one artillery unit is allowed per stack above normal stacking limits.

VICTORY POINTS: The French player gains double the amount of points of each unit he moves off board through Charleroi or the road that exits at the Le Haine River. These points add toward victory along with 1 point for each Allied factor he

has destroyed. The Allied player receives 1 point for each French factor destroyed.

Leading Allied stack starts at 8th road square just North of Ligne River, heading toward Quatre Bras. (All units of Allied Army and Main French Force cannot come on board in one turn. Some must be left off for next turn.)

Example: A 5-4 that is eliminated is worth five pts. to the victor. A French 5-4 that exits through Charleroi or the Le Haine Road is worth 10 pts.

A NOTE ABOUT THE DESIGN:

Since there were no higher formations in the armies of 1705, such as corps or divisions, I decided to devise units as approximations. Each infantry unit is roughly a composite of four battalions. Their attack/defense factors are based mainly on the performance and strength of various historical units. As such I can't give a designation to a unit other than its nationality, and since these are just approximations the figures cannot be exact. But I found that using battalions and being historic makes a lousy game—there are just too many units involved, and stacking gets to be a real problem.

Also a key note; the action of August 18th took place just to the north of the Forest de Soignies. So it is assumed the French move a day early, and that the Dutch aren't so stubborn this time!

VICTORY CONDITIONS

	FRENCH	ALLIED
Marginal	45 pts.	Marginal 60 pts.
Tactical	70 pts.	Tactical 80 pts.
Decisive	90 pts.	Decisive 106 pts.



ORDER OF BATTLE

ALLIED ARMY				FRENCH-BAVARIAN ARMY				
				Main force				
three	7-4	British	two	4-4	German	four	6-4	French
four	5-4		three	3-4		six	5-4	
three	2-6		two	1-6		three	2-6	
one	1-6					one	1-6	
			three	5-3	Artillery	one	5-4	Bavarian
two	6-4	Dutch	one	4-3		one	4-4	
five	5-4					two	1-6	
six	4-4					two	3-4	Spanish
two	2-6					one	1-6	Netherland
five	1-6					one	4-4	Bavarian
						two	5-3	Artillery
						one	4-3	
						two	2-4	Force at
						one	1-6	Waterloo
						two	5-4	Grimaldi's
						one	1-6	Force
						one	1-6	Cologne
						one	3-4	

TIME CHART

Game Number	1	2	3	4	5	6	7
TIME							
2 pm Aug. 16 *							
4 pm							
6 pm **							
8 am Aug. 17							
10 am							
12 am							
2 pm							
4 pm							
6 pm							
8 am Aug. 18							
10 am							
12 am							
2 pm							
4 pm							
6 pm							

French Player moves first.

* Grimaldi's force enters from Brussels road.

** Main French force enters on either road through Forest de Soignies.

A DECADE WITH DAS AFRIKA KORPS



By Omar L. DeWitt

It has been eleven years since *AFRIKA KORPS* first was published. It came out in 1964, along with the first issue of the *GENERAL*. I still have the first editions of both. In those days the *GENERAL* cost only \$4.98. Nowadays the cost has skyrocketed to \$5. What do we get for the 2¢? All we get is 34 pages (instead of 12), color, illustrations, and five times as much printed material. Gone are those ¼-page pictures of Carl Knabe and Louis Zocchi (who is Louis Zocchi?). Gone are the tips on winning by the Sage Sarge: "Smoke heavily . . . Drum your fingers on the table while you whistle a tuneless off-key piece of nonsense during his turn . . . etc." Gone are the days when being a subscriber to the *GENERAL* put you in a select group—there were only 72 of us listed in that first issue. Times change.

Those were also the days when the publication of a new game was a real event. There had not been a new game for almost a year, and we would open the box somewhat reverently, inhaling that special new-AH-game odor (second in favor only to new-car odor). After slowly separating the unit counters, we would start devouring the rules.

AFRIKA KORPS, although it has changed slightly from the original version, has passed the test of time. After eleven years it is still going strong. I have been playing it all of those eleven years, and I still enjoy it. I enjoy it for the reason I think anyone enjoys a particular game: I win most of the *AFRIKA KORPS* games I play. Other people may say they like a game for other reasons, but I just cannot see someone liking *STALINGRAD* best of all after he has lost 27 games in a row. I lose games, too. I recently finished a game as the Germans in which I did not receive a supply unit for six turns in a row. The odds of that happening were 1 in 324. Suddenly those ineffective 1-1-6's turned into attacking hordes; it was like a nightmare. But that makes it interesting; the games are all different.

In a decade of playing, I have picked up a few items that may be of general interest, and I have accumulated (since I play most of my games by mail) a few "problems" that might be of interest.

Opening Moves

Bengasi The 2/2 S.G. unit is the newest looking unit in my *AFRIKA KORPS* box. While some of the other units have the printing almost worn away, this unit is still shiny. That is because it starts every game in Bengasi and leaves the game after the second turn. All German players I have seen isolate Bengasi on Turn 1. Different players have different plans, but the approach I like best is as follows: using the Rommel bonus and moving cross country from W-9 to S-9, Ariete can move to H-3 and the slower Italians to J-3 (see Fig. 1). Elements of the 21st Division could be used to completely seal off Bengasi, but they are better employed elsewhere. The British have two options, then. They can move the 1-1-7 out of Bengasi to G-2 and attack Ariete at 1-5, in which case it has one chance in three of being retreated to F-3 and tying down those Italians for two more turns. Or, they can leave the unit in Bengasi, which ensures that two or three Italian units will be delayed one more turn. Which is the better course is a decision you will have to make, based upon your knowledge of your opponent. If in doubt, be conservative.

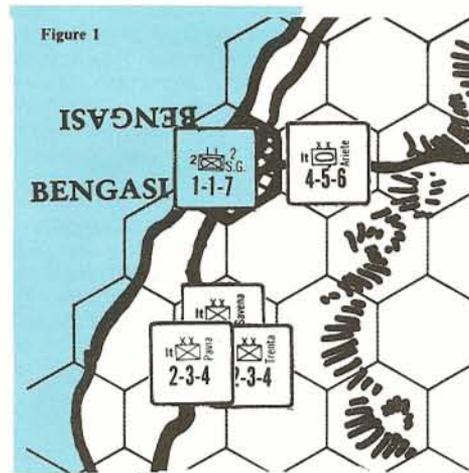


Figure 1. A common opening move that isolates Bengasi. The British then have the opportunity to break out by moving to G-2 and attacking Ariete at 1-5 (the only retreat is toward freedom), or they can stay put and tie down some Italians for one more turn. Note that if the Italians only proceed to K-3, the Allies can accomplish maximum delay by moving 2/2SG to I-2—thus controlling the roads and forcing the Italians to stop on the escarpment at J4.

In one game I played as the British, the German left the slow Italians on K-3 rather than J-3. If I had attacked Ariete and rolled an A BK 2, he could have retreated my unit back into the pocket at I-2. My response was to move to I-2, which tied up Ariete one more turn, as well as the slow Italians, because Ariete had to protect the north.

If the British keep the 1-1-7 in Bengasi, the German can save a little time by positioning the blockading Italians as far along the road to Tobruch as possible (see Fig. 2).

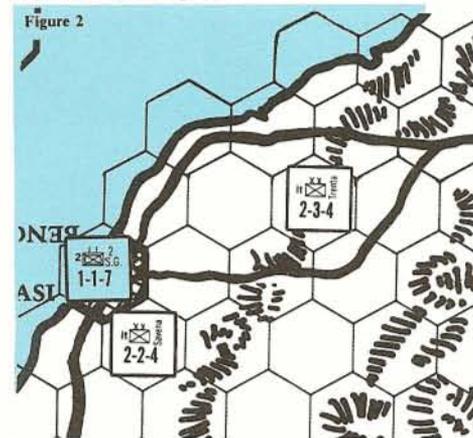


Figure 2. Bengasi can be sealed off on the second turn with two Italian units. Savena cannot be attacked without a supply unit; even if the 2/2 S.G. survives the 1-6 attack on Trento, it is pushed back into the pocket and is removed at the end of that second turn because of isolation. Pavia and Ariete have moved on toward Tobruch.

If the German did not have foresight and did not have a 2-2-4 near Bengasi, he would need three 2-3-4's to cover the fortress. These would be placed at F-5, H-4, and J-3.

When I have the British and I leave the unit in Bengasi, I move my first supply to the front lines (usually K-18). Someday I will have the opportunity to move it cross country and support a 1-2 attack out of Bengasi. **The 21st Division** In the early days, we used to move the 21st up toward Mechili, wait for the Italians, then force a breach in the escarpment line of defense. This often led to German casualties, which can be ill afforded. The line of attack I now use is to send 21/5 and 21/3 plus the supply unit and Rommel directly east. With the Rommel bonus, they can get to T-22 and T-24

respectively. On the second turn, they can be south of Tobruch on S-29 and P-29, threatening a) the rear of the escarpment defense line, b) Tobruch, and c) the British Home Base. The British cannot cover all of these threats effectively and will usually fall back on Tobruch, saving the Germans one risk of exchange. The British will usually leave a 1-1-6 SE of Mechili to delay some Germans or make them waste a supply unit.

The 21/104 unit is sent north on Turn 1 to L-14. This movement ties down the British units on the escarpment defense line, which are usually in the positions shown in Fig. 3. This northern threat to Tobruch makes the southern thrust more potent.

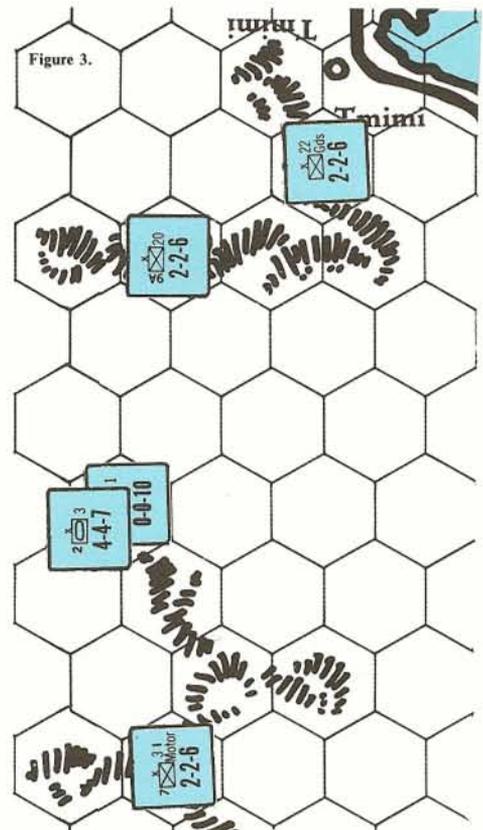


Figure 3. A standard opening move for the British. There is a supply unit in Tobruch, and all the 1-1-6's are at sea.

If the Germans open with a southern thrust, a variation is to leave N-20 uncovered and move a 2-2-6 to P-29.

The British, if the German moves 21/104 north, have little choice in their first move. It will usually look like Fig. 3. When the British retire on Tobruch, they usually leave a 1-1-6 or two to delay the Germans and tempt them to waste a supply in attack. The trick is to not leave too many) to make an attack worth while). The British also have to now decide if they want to threaten the German Home Base. What makes the decision harder is that the only unit usually available for such a move is 2-2-6. If the British unit is sent south) the usual path being N-20, S-20, S-15, etc.), the Germans have three options: a) attack the unit, which is more likely if a supply unit accompanies it, b) surround it, which delays at least three units for a month, or c) isolate it later with a north-south line of units east of Tobruch. Again, you have to know your opponent before deciding.

The third threat of the southern move by the Germans that I mentioned is aimed at the British Home Base. With the Rommel bonus, the 21/3 can

be on P-31 and the 21/5 plus Supply #1 can be on S-30 on the April (2) Turn. The British must cover the pass at J-34, usually by putting a unit on K-35 or K-36, or the Germans have a clear line to the British Home Base (even if the Home Base is protected with a combat unit, the Germans can attack that with the 7-7-10 while the 2-2-12 captures the Home Base). After the British cover the pass at J-34, the 21/3 can still be on the escarpment at M-42 on the May (1) Turn, making another problem for the already thinly spread British.

Tobruch

In defending the escarpment around Tobruch, the British have to be careful to not extend themselves too much. If they do, the Germans can attack at the center and cut off at least the western British flank (see Fig. 4). Some players prefer to not defend the escarpment except for a 1-1-6 to waste a German supply. I usually defend the escarpment with all but about three 1-1-6's, two of which guard the pass from K-35. If the German does bypass Tobruch, he will have to leave a very large covering force, which he is unlikely to do. Also, an exchange or a soak-off loss will weaken the Germans somewhat for the long haul ahead.

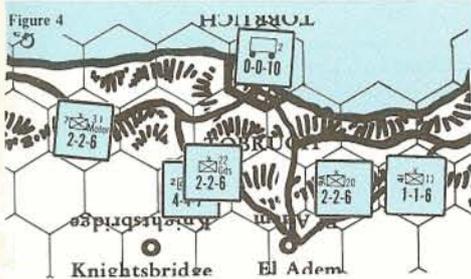


Figure 4. Before the first reinforcements arrive, the British cannot defend much more of the Tobruch escarpment than shown here. 1-25 is the key. If the Germans can attack and move onto I-25, British units west of Tobruch are effectively cut off; it will take them two moves to get into Tobruch via G-23 and G-24. To keep from getting cut off, the British may have to defend only from hexes G-24, H-25, and H-26 from the beginning.

When I have the German side, I drive the British back into the fortress of Tobruch, leave two 2-3-4's to cover it, and move the rest of the Axis army on toward Alexandria. If I ever had a chance at a 3-1 on Tobruch, I would take it at that time, but that opportunity has never come up.

Tobruch is the key for a German victory, and he should not lose sight of that. However, a low-odds attack on Tobruch at this stage of the game is very risky; any sizable loss can be crippling. If the German attacks now at low odds, he is turning *AFRIKA KORPS* into a dice game.

As the Germans move closer to the British Home Base and threaten it, the British will sometimes weaken the Tobruch garrison to reinforce the Home Base troops. The Germans should watch the Tobruch garrison; it may get low enough to take. If all British units are on land, and if no reinforcements are due, the Germans have two turns to drive back to Tobruch and attack it before it can be reinforced by sea. The 21st and 15th Panzer Divisions can be up to 43 hexes from Tobruch when that garrison is down to three or four defense factors, and they can get back (using the road and Rommel bonuses) and attack at 3-1. The Germans should *always* keep this in mind (so should the British); the capture of Tobruch early, while no guarantee of success, is a great help.

El Alamein

As the British retreat on their Home Base, the action changes while it funnels to El Alamein. Since the area is constricted, movement is not the major consideration it is on most other areas of the board.

The emphasis now is on position, and play takes on a chess-like flavor. Books could be written on "end game" positions and analyses of them. Other books could well be filled with problems on the play around El Alamein. I find the action here intriguing and fascinating. Several of the "problems" deal with this area.

The German normally has an acute supply problem at this end of the board (unless Tobruch has fallen); so he has to weigh each attack carefully in order to get the most out of each supply unit. The British have to protect their Home Base and hang on to as much territory as is possible.

It is practically impossible to give any general rules or suggestions of play here because so many different situations can exist. Several specific situations are depicted in the "problems," and they may be of some general help.

The End-Game at Tobruch

Very often *AFRIKA KORPS* is resolved at Tobruch, the British having been eliminated everywhere else on the mapboard. The German problem, then, is simply to reduce the number of large British units available for defense. Problem #7 covers this aspect of the game in some detail.

General Aspects of Play

Isolation. Supply is extremely critical in *AFRIKA KORPS*. I am particularly conscious of supply because I lost my first game to one of my students in a game of *AFRIKA KORPS* after he isolated a large group of my units. He, by the way, is still in the 8th grade.

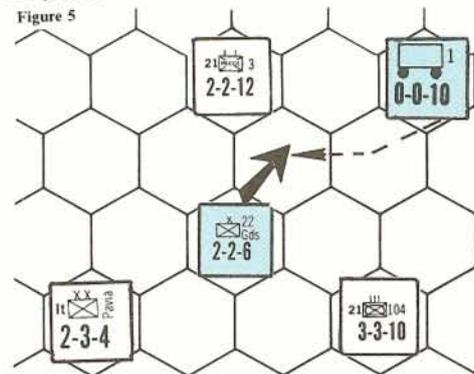


Figure 5. Although the 22 Gds unit is isolated at the start of its turn, it can move adjacent to 21/3 and be supplied from the supply unit at the end of its movement and before combat via the dotted path.

A unit that starts a turn isolated can, during the course of the movement portion of the turn, become supplied. This act will normally commit him to attack, however (see Fig. 5). If the British unit in Figure 5 had been a 1-1-6, it could have attempted to break out of isolation by moving adjacent to Pavia and attacking at 1-3, no supply being needed. If the attack resulted in a bk 2, the 1-1-6 would have had to be retreated out of the isolation pocket.

In not all cases can an isolated unit break out by itself (see Fig. 6). The British unit here can break out only if outside units attack, and the surrounded British unit could participate in the attack only if its two attack factors would bring the total of the attacking factors to 10 or more (which would give 5-1 odds surrounded on Bologna).

Supply lines are an important corollary of isolation. Supply lines cannot be drawn through hexes where the supply unit itself could not, eventually, move. Therefore, it is possible for a supply unit adjacent to a combat unit to be unable to sustain the attack of the combat unit because of enemy zones of control (see Fig. 6). There are other

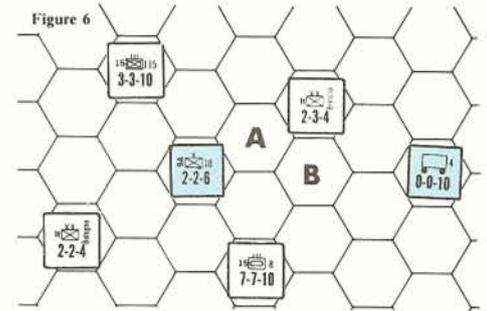


Figure 6. In this situation, the 9A/18 cannot attack and cannot break out of isolation by itself. It could move to hex A and the supply could move to hex B, but the supply unit could not sustain the attack because of the German zones of control. The supply line cannot go where the supply unit itself cannot go. The supply unit could never move from B to A (the German units being where they are); so the supply line cannot run from B to A.

situations where, at first glance, you might think supply is impossible (see Fig. 7). All four German units in Figure 7 can be supplied by the one supply unit because the Automatic Victories on the two British units negate the British zones of control. The supply unit could actually move in a straight line over Pavia and 7A/2 and stop on Ariete; therefore, the supply line can be drawn to Ariete, and to 15/115.



Figure 7. The one German supply unit can supply all four Axis units because the British zones of control are ignored as soon as Automatic Victory is established.

Automatic Victory (that flash of genius from Tom Shaw) is another very important aspect of *AFRIKA KORPS*. It is a constant worry of the British. The threat of Automatic Victory can be minimized in some cases, although it often requires cannon fodder. In Figure 8, the Poles cannot be attacked (unless the Germans can move units around from the south). Those German units that move onto the escarpment must end their move there. It is possible to get an Automatic Victory against 7A/1, but German units cannot move through the hex that British unit is on because the Pole zone of control extends into that hex, and the Germans could not move through the Pole zone of control. The Germans cannot stop on top of 7A/1 because the rules prohibit that. And, of course, combat cannot occur between units on E-18 and F-19. As a result, the Germans can get an Automatic Victory on 7A/1 but cannot attack the Poles and they cannot move past the Poles.

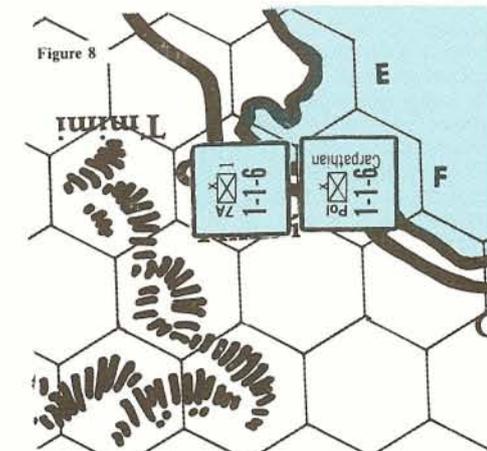


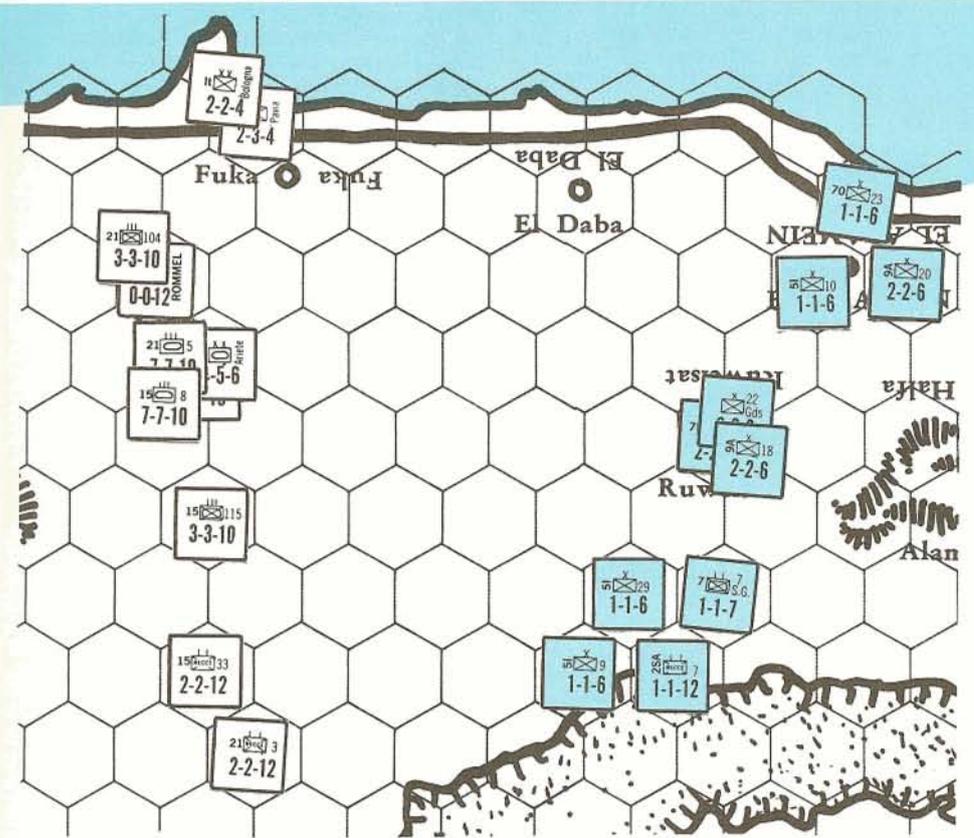
Figure 8. Although an Automatic Victory can be achieved against 7A/1, the Poles cannot be attacked.

Experimental Panzer *Continued from Page 26*



Problem #4

The time is Sept. (1), 1941. In Tobruch, the British have 2/3, 7/7, 7/4, and Supply #1. The Germans have Supply #3 on G-22, Supply #1 on L-22, Trenta on H-26, Brescia on G-24, and their Home Base is garrisoned. What is the best German move?



Problem #5

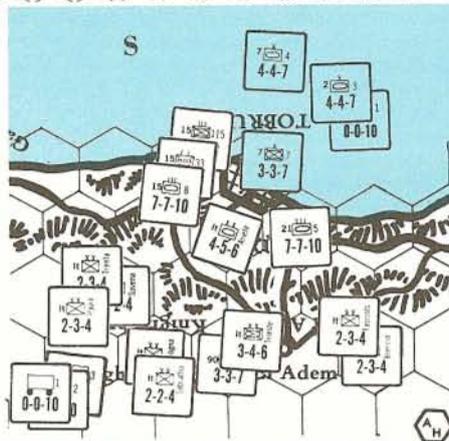
The time is July (1), 1941. The German Home

Base is garrisoned and their Supply #3 is on K-11. What is the best German move?



Problem #6

The time is Dec. (1), 1941. Rommel is on W-3. No other British units are on the board, but they have all their November reinforcements available: two units with a defense factor of 4, three units with a defense factor of 2, and eight with a defense factor of 1. What is the best German move?



the German turn; a Russian engineer unit may ignite its own hex, but *may not move on that turn*, i.e., it must remain in that hex and be subjected to fire "attack" at the beginning of the next turn.

In Conclusion

The war on the Eastern Front, 1941-1945, gave to history the term "scorched earth." Strategically, "scorched earth" was a means of denying resources to the enemy by widespread, self-inflicted arson. These experimental optional rules for *PanzerBlitz* are intended to simulate this policy on the tactical level, as a means of denying *terrain* to the enemy. From Sherman's March to the Sea to the napalming of Viet Nam, military history records many examples of arson as a way of waging war. The proposed rules, with suitable modifications, might be applicable to any tactical scale game on twentieth century warfare. A "forest fire" scenario for *Outdoor Survival* might also be developed. A related issue is the question of the effects of smoke on the battlefield. In *PanzerBlitz*, the wreck counters depict a burning vehicle. Players might wish to experiment with the following optional rule: The smoke from a burning wreck obstructs the Line of Sight during the entire Turn following the Turn in which it is created. We could also think about the effects of wind direction and velocity . . . but that is quite beyond the scope of this brief article.



CONTEST No. 64

The Russian player has chosen to defend in the open in front of Moscow to attempt to gain another turn of replacements. As the German you must initiate an attack plan that has the greatest chance to result in German units adjacent to Moscow at the end of the turn. However, if you feel the cost of an attempt at the former to be prohibitive merely make an attack which presents you with the most favorable attrition ratio. This ratio is defined as the highest ratio of Russian to German probable factor losses, counting Russian units which might be surrounded as lost. Regardless of the option chosen, attention should be paid to maintaining the most favorable attrition position. German units may only be placed in the shaded attack hexes. All others are considered inaccessible due to neighboring Russian units. Indicate your placement of German units by writing their combat factors in the desired hex, and in the proper place on the chart below.

AVAILABLE GERMAN FORCES: 47, 41, 14, 46, 6R, 57, 44, 24, 39, 56 Armor; 2, 26, 28, 1R, 2R, 3R, 4R, and 5R Infantry.

The entry form for Contest No. 64 may be found on the Reader's Response Page.

RICHTHOFEN'S WAR ANALYSIS

BATTLING THE RED BARON

by David Bottger

Richthofen's War is the finest game available on aerial warfare and one of the best wargames ever made. Its clean mechanics and realistic, comprehensive rules allow players to rapidly confront the same strategic and tactical problems confronted by pilots in World War I. Despite its quality, however, *Richthofen's War* has received relatively little attention in the *General*. No one has attempted to systematically analyze the decisions faced by *RW* players. Specifically, the Allied player typically faces two difficult problems: (1) how to cope with German superiority in firepower, and (2) how to properly use Allied advantages in maneuverability. This article will discuss these questions from the viewpoint of the Allied side, although what is said may be applied by the German player as well in appropriate situations.

German Superiority in Firepower

In a number of scenarios and throughout the campaign game, the Allied player is badly out-gunned. Most players soon realize this. But it is important to know how large the German advantage is. This information can aid greatly in the initial selection of tactics and in the implementation of those tactics. The source of Allied inferiority in firepower and thus the logical starting point in discussing this area is the Target Damage Table.

As it appears on the box sleeve, the TDT provides little tactical guidance. It gives only the range of possible results, which may be misleading. Each player, and particularly the Allied player, needs to know how much damage he can expect to inflict or absorb in a certain attack—that is, the expected or average damage.

The tables which follow supply this information. The four tables, labeled A, B, C and D, correspond to the four columns of the TDT. The numbers along the top of each table represent the range in hexes from the attacker to the target aircraft. The numbers down the left-hand side of each table list the possible modifications to the die roll from the use of aces, the optional deflection rule, or both. To illustrate, when an ace fires at a non-ace from any direction, disregarding the deflection rule, 1 is added to the die roll. Thus, the +1 row is used. An ace firing at a non-ace from the side, using the deflection rule, would use the 0 row. A non-ace firing at an ace from the side, using the deflection rule, would use the -2 row.

By cross-indexing the range in hexes and the applicable die roll modification, two numbers are found. The top number is the average number of damage points inflicted in the attack. The bottom number is the percentage chance of a critical hit. For example, a Nieuport 17 uses column C of the TDT, so it uses Table C. Firing at an Albatross D-III head on at a range of 3, giving a die roll modification of 0, yields on the average 1.25 damage points and a critical hit 8% of the time. If the Albatross returns fire, Table A gives an expected result of 1.58 damage points on the Nieuport and an 11% chance of a critical hit.

The tables provide a clearer picture of Allied inferiority in firepower. Allied planes using column C of the TDT (which includes the Sopwith Triplane and Pup, Nieuport 17 and others) are about two-thirds to one-half as effective as German planes using column A (all important German fighters). To

		TABLE A Range						
		1	2	3	4	5	6	7
Die Roll Mod.	+1	4.67 25	3.72 22	2.08 14	1.53 11	1.08 8	.83 8	.67 8
	0	3.89 19	3.00 17	1.58 11	1.17 8	.78 6	.53 6	.39 6
	-1	3.11 14	2.31 11	1.11 8	.86 6	.50 3	.31 3	.17 3
	-2	2.36 8	1.67 8	.72 6	.57 3	.31 0	.17 0	.08 0
		TABLE B Range						
		1	2	3	4	5	6	7
Die Roll Mod.	+1	4.22 22	3.00 19	1.94 14	1.25 11	.94 8	.78 8	.50 8
	0	3.56 17	2.42 14	1.42 11	.89 8	.61 6	.47 6	.31 6
	-1	2.86 11	1.89 8	.97 6	.58 3	.36 3	.25 3	.17 0
	-2	2.17 8	1.39 6	.61 6	.36 3	.19 0	.11 0	.08 0
		TABLE C Range						
		1	2	3	4	5	6	7
Die Roll Mod.	+1	3.00 19	2.14 14	1.69 11	1.11 8	.83 6	.67 6	.36 6
	0	2.42 14	1.67 8	1.25 6	.78 6	.53 6	.39 6	.19 3
	-1	1.89 8	1.25 6	.89 3	.50 3	.31 3	.19 3	.08 0
	-2	1.39 6	.89 3	.58 3	.31 0	.17 0	.08 0	.03 0
		TABLE D Range						
		1	2	3	4	5	6	7
Die Roll Mod.	+1	1.89 14	1.11 11	.67 8	.53 8	.50 8	.31 8	.19 8
	0	1.39 11	.78 6	.39 6	.31 6	.31 3	.17 3	.08 0
	-1	.97 8	.50 3	.19 3	.17 3	.17 0	.08 0	.03 0
	-2	.61 6	.31 0	.08 0	.08 0	.08 0	.03 0	.00 0

compound this deficit, German planes generally have damage factors, ranging from 10 (Fokker Triplane) to 15 (Roland C-II). In contrast, many Allied planes have low damage factors, e.g., Nieuport 11 at 6, Nieuport 17 at 9, FE-2 at 7. Of course, some Allied planes (Snipe, SPAD 13) have high damage factors, but this is little consolation to the pilot of a Nieuport.

A cursory examination of the tables provides some tactical guidance. It shows first that there is no general principle covering the situation where, under the deflection rule, a player has the choice of using his last movement point to increase the range of an expected enemy attack next turn or stay in the same hex and turn one hexside, thus forcing a deflection attack. As an example, suppose an Allied pilot battling a Fokker D-VII has 1 MP left of his movement allowance. He can use it either to increase the minimum range of his opponent's attack in the next turn-segment from 1 to 2, or allow an attack at range 1 but force a deflection shot. Table A tells what he should do. Increasing the range from 1 to 2 reduces expected damage by .89, from 3.89 to 3.00. Forcing a deflection attack at range 1 reduces the expected damage by .78, from 3.89 to 3.11. Thus, the Allied player should use his last MP to move, not turn. But if the Allied player is at range 3 with 1 MP left, he should turn rather than move an extra hex. Forcing a deflection attack at range 3 reduces expected damage by .47, from 1.58 to 1.11. Increasing the range from 3 to 4 reduces expected damage by .41, from 1.58 to 1.17. Clearly,

how to use the last MP depends on the range of the expected attack. When in doubt, consult the tables.

The second bit of tactical advice which can be gleaned from a glance at the tables is that the possibility of a critical hit should not affect play much. Critical hits are exciting when they occur and a definite advantage to the player who inflicts them, but they occur rarely. In a normal situation, with no aces in the air, an attack using column A of the TDT, at range 1, with no die roll modification, will give a critical hit only 19% of the time. On Table C, the chance of a critical hit normally will not exceed 14%. Therefore, players should not overemphasize critical hits, although the Allied player is usually more likely to suffer one.

A more detailed examination of the tables gives more specific advice. In the Campaign Game, the Allied player cannot trade shots with his opponent's Albatrosses with much hope of success. A single Nieuport 17 firing at an Albatross D-III at range 1, die roll modification 0, can expect to down the Albatross in 4-5 firing turns ($11 \div 2.42 = 4.54$). However, the Nieuport will be destroyed in 2-3 German firing turns at the same range ($9 \div 3.89 = 2.31$). Add to this the Nieuport's low ammunition supply of 6 and the Allied player had better find some tactic other than shooting it out.

The tables can even help dictate tactics in specific scenarios. A more detailed analysis is required for this purpose. Assume Scenario 5, tactical bombing, using the last Advanced Level match: 2 Sopwith Pups versus an Albatross C-V and an Albatross D-III. The Allied player has three distinct options. He can attempt to destroy the D-III first, then go after the bomber. He can attack the bomber with one Pup and try to hold off the fighter with the other Pup. He can finally ignore the fighter and attack the bomber with both planes.

Under option 1 (destroy fighter first), the best attack the Allied player can hope for each turn is to have one Pup firing at the D-III's tail and the other at its side, each at a range of 1 hex. Table C tells that this will, on the average, inflict 4.31 damage points per turn, assuming use of the deflection rule ($2.42 + 1.89 = 4.31$). At that rate, the D-III will be destroyed in 2-3 firing turns ($11 \div 4.31 = 2.55$). At the same time, the D-III should inflict between 7.78 (3.89×2) and 11.67 (3.89×3) damage points. This will probably cripple or destroy one of the Pups, leaving the other Pup to battle the C-V.

The surviving Pup will need 4-5 turns ($11 \div 2.42 = 4.54$) of optimal firing position to destroy the C-V. Translating this into movement of the bomber, the C-V will be able to expend 51 movement points from the initial attack on the fighter to the destruction of the bomber. The bomber can expend 24 MP's during the 3 turns the Pups will probably need to destroy the fighter, and an additional 27 MP's before it will be shot down. In addition, the Pups will be able to begin their optimal attacks on the D-III only after 4 turns of climbing, giving the bomber an extra 32 MP's. By these rough figures, the C-V will have 83 MP's before it is shot down. This is more than enough MP's to bomb a close target hex such as V-19 and exit the board, giving the German player at least a 9-4 victory.

This illustration is based on a number of assumptions that favor the Allied player. It assumed that all attacks were made at range 1 and minimum die roll modifications. If the Pups attacked at range 3 instead, they would need 5-6 firing turns to destroy

the D-III ($11 \div 2.14 = 5.14$). It assumed that the D-III would not damage one of the Pups enough to render it ineffectual, then turn on the other Pup. It assumed that the Pups could shift their attack from the fighter to the bomber without wasting a turn. And it assumed that the C-V would not inflict significant damage on its pursuer. Under more realistic conditions, the Allied player has even less chance of winning.

Option 2 (one Pup attacks each German aircraft) can be analyzed in the same way. The Pup that dogfights with the D-III should be destroyed in 2-3 turns ($10 \div 3.89 = 2.57$). The D-III can then dispatch the other Pup in another 2-3 turns. This gives the second Pup 4-6 turns of fire at the C-V, during which the C-V will suffer from 9 hits to destruction ($2.42 \times 4 = 9.68$; $2.42 \times 6 = 14.52$). If the Allied player destroys the C-V and can exit with one Pup, he will win 6-4. If both Pups are destroyed, the German player will win 8-6. So the Allied player has a chance under option 2 but not a great one.

Under option 3 (both Pups attack bomber), the Pups will need 2-3 turns ($11 - 4.31 = 2.55$) of optimal fire to down the C-V. But the Albatross D-III will destroy one of the Pups in about the same time, as computed under option 1. If one of the Pups is downed before the C-V, the surviving Pup will have to shoot down the bomber before falling to the D-III itself. At the least, however, the two Pups should inflict extensive damage on the bomber before one of them is downed, giving the other Pup a good chance of finishing the C-V and exiting the board. Thus, option 3 appears to give the Allied player the best chance of victory.

One qualification should be inserted here for completeness. Interestingly, some aircraft can be put out of action without actually being shot down. Inflicting 11 hits on a DeHavilland 4, Albatross D-II, or Pfalz D-III will reduce its speed below minimum and force it into a glide. Thirteen hits on a Roland C-II will do the same. So in analyzing a scenario as above, the players should realize that forcing the enemy into a glide may be sufficient to win a scenario, and should adjust their calculations accordingly.

Allied Maneuverability

Superior maneuverability provides two advantages: it allows the pilot to reach a firing position and it allows him to avoid enemy fire. To the outgunned Allied player, the main value of maneuverability is to avoid and thereby negate German firepower.

A look at the Aircraft Capabilities Chart reveals that most Allied fighters are more maneuverable than most German fighters. Of the 16 Allied planes designated as fighters on the ACC, 5 use Maneuver Schedule B, 7 use C (almost $\frac{1}{2}$), 3 use D, and 1 uses E. Four of the 9 German fighters (almost $\frac{1}{2}$) use B, 3 use C, 1 uses D, and 1 uses E. However, while it is relatively easy for the German to use his firepower advantage, the Allied maneuverability advantage is more difficult to exploit.

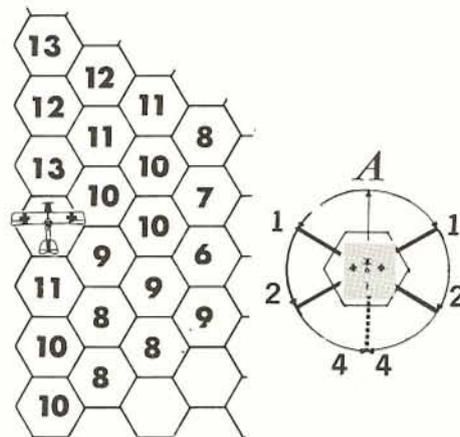
Unfortunately, this is the one and only area where *RW* falls short. The simple but illogical sighting rule allows a fast plane to use its speed to compensate for a lack of maneuverability, rather than keeping speed and maneuverability in their proper places in the game. Basically, the sighting rule requires that the firing aircraft spend its last 2 MP's with the target in its field of fire. This requirement represents the time a pilot needs to accurately aim his guns. But the rule as it stands implies that the time a pilot needs to aim his guns decreases as his aircraft's speed increases.

An example will best illustrate this point. Each turn represents 10 seconds of actual time. If a plane is travelling at a speed of 10 MP's per turn, each MP

represents 1 second. For a plane at this speed, the 2 MP sighting requirement converts into 2 seconds. In contrast, a plane flying at 4 MP's per turn, so that 1 MP equals $2\frac{1}{2}$ seconds, needs the equivalent of 5 seconds to sight its target. The same plane, at a speed of 8, would need only $2\frac{1}{2}$ seconds for sighting. There seems to be no logical reason why a pilot's sighting time should decline as his speed increases. If anything, sighting time should increase with speed. Of course, the designers of *RW* may have based the sighting rule on considerations other than logical symmetry, perhaps to promote ease of play. But logically, the rule is untenable.

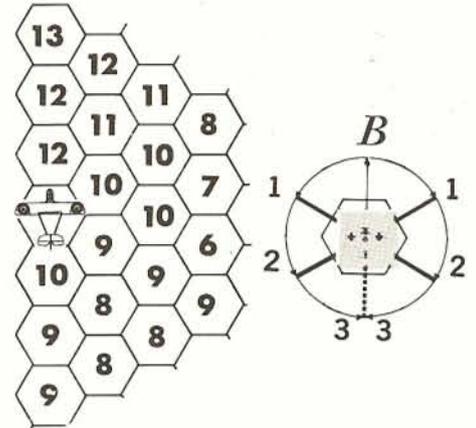
Admittedly, mere illogic does not make a rule bad. But the sighting rule unjustly favors less maneuverable planes (generally German) while harming more maneuverable ones (generally Allied). The advantage of maneuverability is the ability to change direction at a low MP cost. A faster plane can compensate for poor maneuverability by its speed. So far, no problem. However, when the faster plane increases its speed it should logically have to spend more MP's to sight its target. In other words, speed should not be a substitute for maneuverability. Speed and maneuverability should each provide a distinct advantage, as each did in World War I. Faster planes can cover more hexes per turn, allowing them to join combat faster and escape pursuit if necessary. In a dogfight, however, speed should be a relatively slight advantage. There, the more maneuverable aircraft should have an edge.

The solution is to change the sighting rule from a fixed number of MP's to a number that increases as speed increases. Sighting should require a fixed fraction, say one-half or one-third, of the firing aircraft's MP allowance for the turn. Adopting this rule would restore speed and maneuverability to their proper positions. As a footnote, this suggestion comes from SPI's *Flying Circus*, a game markedly inferior to *RW* in all other respects.

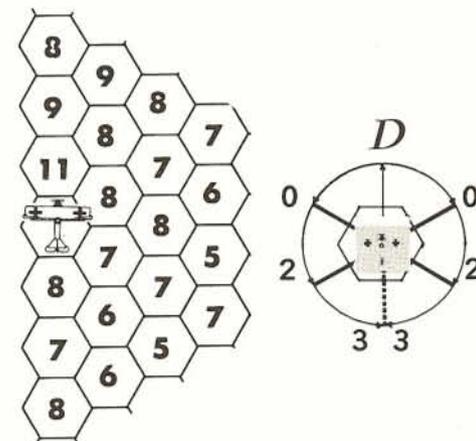
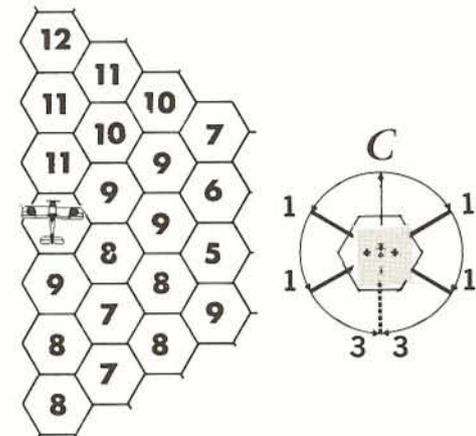


Returning to the game as it stands, there are ways the Allied player can use his maneuverability. Unlike his inferiority in gunnery, however, the Allied player needs more than an intuitive understanding of the problem. The diagrams which follow show more systematically the uses and limits of maneuverability. There are 5 diagrams, corresponding to the 5 Maneuver Schedules. The arrow in the center of each diagram represents the position and heading of the plane whose Maneuver Schedule corresponds to the name of the diagram. For example, the arrow in diagram A represents a plane which uses Maneuver Schedule A. The number in each of the other hexes shows how many MP's the aircraft represented by the arrow must expend in order to fire into that hex. In other words, a hex with the number 10 in it means that the aircraft in the center of the diagram must expend 10 MP's to reach a position where it could fire at a plane in that hex.

Diagrams A, B, C and D are cut in half because the left side of these diagrams is a mirror image of the right side. This is not true of Diagram E, which appears in full.

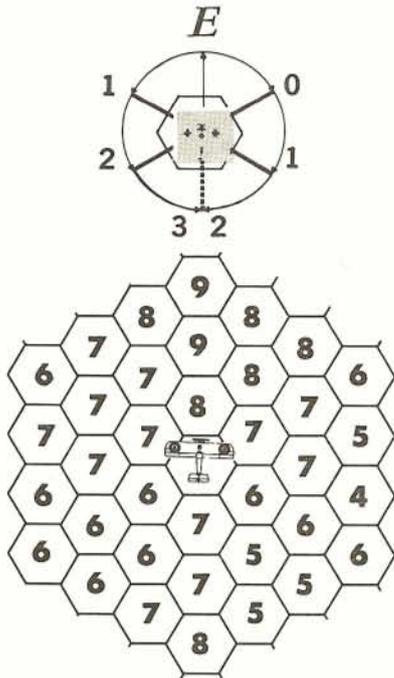


The uses of these diagrams should be obvious. Returning to a familiar example, Nieuport 17 vs. Albatross D-III, if the Allied player knows the Albatross can expend a maximum of 8 MP's in the upcoming German turn, he can avoid the Albatross' fire by moving to a hex with a number above 8. The German player can do the same in his turn, but using diagram C instead of B. The diagrams show that generally, the best place to be to avoid enemy fire is directly in front of the enemy plane. Unlike the actual war, being on the enemy's tail does not guarantee safety in the game. This is so because movement in *RW* is sequential, while movement in a real dogfight was simultaneous.



Players using the diagrams should keep one important fact in mind. Simply because an enemy aircraft has a maximum speed of 8 does not mean that

aircraft can expend only 8 MP's. A plane can increase its MP allowance by 2 for each 100 meters or less that it dives. An Albatross D-V, with a maximum level speed of 9, can expend the equivalent of 15 MP's by diving 350 meters in a turn. The Allied player must be especially wary of this possibility, since he cannot afford to give the German player many firing chances. Obviously, the solution for the Allied player is to stay above the German aircraft. If the Allied planes are 250 meters or more above the enemy, they cannot dive to reach a firing position since diving even 50 meters would put them out of range. As in the real war, altitude can be crucial in *RW*. And fortunately for the Allies, many Allied fighters have high climb rates.



Conclusion

Richthofen's War portrays World War I aerial combat realistically. This should give the Allied player some encouragement—the Allies *did* win the war. Beating a competent German player will not be easy, however. The Allied player must make the most of his advantages in maneuverability and climb rate, while negating the potentially murderous German firepower. In addition to the advice already given, the Allied player must follow one more rule: be patient. Implementing the advice given in this article will require time, objectivity and precision. Perhaps these three qualities best define the narrow line between aggressiveness and recklessness which the successful *RW* player must follow.



Force or Finesse

Continued from Page 15

We hope to have shown that Finesse, the use of less than maximum possible odds, can often increase the chance of success. Sometimes a combination of high and low odds attacks, which advantageously utilize the unique two line results of the Tournament Game Battle Results Table, can achieve more than an even sprinkling of medium odds attacks. And sometimes the German must use Force, and Hit as hard as possible. Determining Whether to use Force or Finesse is a challenge throughout the game!



Solution to Problems in A Decade with Das Afrika Korps

Solution for Problem #1

If you attacked, I do not think you made the best move. The Germans have only two supply units on the board; so it is best, other things being equal, to conserve them. The 21/5 is in no danger this turn. The best approach is to threaten rather than commit. I recommend this move:

21/5.....	0-37
21/104.....	P-28
21/3.....	M-48
Ariete.....	J-21
Brescia.....	F-16
Pavia.....	E-17
Trenta.....	I-18
Bologna.....	J-18
Sup. #1.....	T-32
15/33.....	M-24
Savona.....	W-3
15/8, 115; Sup. #2.....	J-20
Rommel.....	R-37

(Rommel cannot be isolated)

21/3 to M-48 means that the British have to abandon J-62, their Home Base. It cannot be defended by the Poles; so the supply has to be pulled out.

If the British maintain their isolation of 21/5, the Germans, at the very least, will eliminate more than one 1-1-6 for their supply unit, but more probably the British would face isolation soon themselves by the main force of the Axis enveloping Tobruch. I think the above move is very good and shows how the threat of future attacks is more effective than immediate combat.

Solution to Problem #2

What I did was retreat.

M-47.....	Rommel; 21/5, 104; Supply 3
M-48.....	21/3, 15/33
K-49.....	Ariete, Pavia
M-49.....	Bologna
M-44.....	15/8, 115
J-40.....	Sup. #2

My British opponent suspected nothing and, in his Oct. (1) Turn, only interchanged the 9A/18 and 9A/20 units.

On my Oct. (2) Turn I fell back on Tobruch with the panzer divisions and retreated the forward Italians to J-38. The Tobruch assault was split into two groups: first a 1-2 of Trenta against 9A/18 (so that a roll of 1 or 2 would allow the following 3-1 to advance into Tobruch), and second a 3-1 of Brescia, 15th Division, and 21/5, 104 against 7/7 and 2SA/4. Even if the worst were to happen, the Germans could bring up the rest of its force and attack at 3-1 on the Nov. (1) Turn.

This play is a bit more risky than I normally like. At worst, the Germans could have lost a crippling 18 attack factors in taking the fort. (As it was, they lost 10 to the British 6.) That had to be weighed against the value of Tobruch and the other attack possibilities open. Decisions of this sort are also affected by the quality of your opponent's play. Usually, the better your opponent, the more risks you have to take.

Solution to Problem #3

Retreat all three units to H-21.

Then move the following units: 7A/2 to J-62 to protect the Home Base. 41/5 and 2/3 to I-21. 9A/20 and 22 Gds to G-21. 7A/1 and Pol to H-22. 7/31 Motor to K-21. Supply #1 to G-25 and Supply #2 to I-23.

The Poles and 7A/1 soak off against 21/5 and Ariete at 1-6. The rest of the units attack 21/104 at 3-1. Even if 9A/20 and 41/5 are lost in an exchange, Ariete and 21/5 are doomed. The German cannot get an automatic against 2/3 or the 22 Gds, although he can come close. Since the surrounded Axis units cannot be in supply before the combat portion of the turn begins, they are eliminated. Tobruch, also, is safe.

Solution to Problem #4

The 21/5 was moved to L-58 for an Automatic Victory on 51/10. Ariete then could move to M-59. Bologna on M-58 soaked off against the three 2-2-6's at 1-6 odds. 15/8 went to O-58 for an Automatic Victory against 51/29, letting the rest of the 15th Division (33 and 115) go to O-59, where they attacked 7/7 S.G. at 5-1. 21/3 covers the right flank at Q-57, while Pavia and 21/104 take on 70/23 at K-58 (odds of 5-1).

What makes this move good is that Ariete is added to the attack on 51/10 and does not have to attack the stack of 2-2-6's. At the end of combat, then, the three 2-2-6's are isolated and effectively eliminated, since supply cannot get to them. No matter what the outcome of the 5-1 attacks, the Germans should have little trouble mopping up.

Solution to Problem #5

At first glance, it does not seem that the Germans have enough supply to eliminate the delaying 7A/1 and assault the British Home Base. However, with the Rommel bonus, Supply #2 can get to J-42 and sustain Ariete and Savona surrounding 7A/1 at 6-1. The rest of the Axis force can now move on toward El Alamein. Pavia (with Rommel boost), 21/3, and 21/104 can get a 7-1 against 7A/2; 15/8 and 115 can surround 7/7 S.G. at 5-1. That allows Supply #1 to move to M-60. And for the coup de grace, 21/5 moves with the Rommel bonus to K-62 to take out the Home Base garrison at 7-1. 15/33 should go back to Tobruch and help seal it off.

Solution to Problem #6

The thing the German has to remember is that the game is not yet half over. One large 1-1 attack is potential folly, and again, this approach turns *AFRIKA KORPS* into a dice game. If the Germans have only a few units left as the end of the game nears, then a 1-2 or 1-1 attack may be justified as a desperation move. But certainly not now.

There are two ways of reducing Tobruch that are sensible:

1) Work on eliminating one large unit per turn while losing as little as possible in the necessary soak-off. In this example, it is possible to get a 5-1 on the 7/7 (3-3-7) and soak off with a 3-3-10 at 1-6. (The 3-3-10 is used so that if it ever gets back into the game as a replacement, it can get to Tobruch faster.) There are now "only" four 4-4-7's left available to the British, plus some 2-2-7's. The German can keep at this until the British, or he, are worn down.

2) Attack two defending units at 1-2 and follow that with a 3-1 or better attack on the third defender. This will give the attacker two chances in six of being able to move into Tobruch after the 3-1 attack. In this example, 7/4 and 2/3 can be attacked at 1-2 by 15/33, 115, Bologna, and Sabratha. (Important note: the attackers on the 1-2 must total *more* than eight, which is exactly one-half of the defenders' value. If the attacker has exactly eight, the defender need remove only one 4-4-7 in an exchange, and that would defeat the purpose of the attack.) Then the 7/7 can be attacked at 4-1. If the 1-2 has a die roll of "1" or "2", Tobruch falls with the 4-1.

FORCE OR FINESSE

A study of German tactical alternatives in Battle of the Bulge.

By Dr. J. Michael Robinson

In the article on *BATTLE OF THE BULGE* (Vol. 9, No. 6, p. 11-12) Jerold Thomas describes the strategy of creating *Unit Hunger* through *Reinforcement Delay*. In coining these colorful phrases I felt Mr. Thomas displayed remarkable insight into the overall strategic picture confronting the German in his early Bulge moves. However I agree with the editors that the plan he offered in illustration was "somewhat lacking in the practical application of sound tactics." Stimulated by his creative turns of phrase for the strategic problem, we would like to offer a phrase that we believe illustrates the essence of a recurring tactical choice facing the German in Bulge, *Force or Finesse?*

- Mr. Thomas attempted to accomplish 5 goals:
- 1) Reinforcement Delay of the 4th, 99th, and 2nd U.S. division,
 - 2) orthodox elimination and/or surrounding of the equivalent of one division-elements of the 106th and the 14th Cav.,
 - 3) the usual 8-1 treatment of 9/CCR,
 - 4) to carry the Our for planned breakthrough on turn 2,
 - 5) and most importantly to delay the 28th division.

I basically agree with these goals but feel that tactical improvements can be made that greatly improve overall chances of success.

The improved tactical deployment in each battle situation is discussed in detail to illustrate the balancing of Force and Finesse. The 10 place Play-By-Mail Tournament Game Battle Results Table is utilized for these detailed discussions since percentages are abstracted straightforwardly. Also remember that all optional rules are in effect.

Our discussions supporting specific battle-options are involved and often hinge upon precise rule interpretations conjunctive to the unique two-line CRT. In particular important points have been recently reiterated and/or clarified in *The General*, Vol. 10, No.'s 1 & 2, Question Box: "the ambiguity(s) in the rules regarding retreats and advances . . . should be reconciled by using the tournament CRT . . . rules. The contrary rule(s) in the appendix of the Battle Manual should be ignored."

Battles # 1 & 2 against the U.S. 4th Division —

The 3-1 *Force attack* against 4/8 guarantees the Reinforcement Delay of the 4th Division by blocking the direct road to Diekirch, and forcing at least 4/12 and 4/16 to take the longer route to the south. The 1-1 that Mr. Thomas proposes against 4/8 utterly fails to prevent the entire 4th Division from flooding into the crucial areas of the center of the board 30% of the time. This could be increased to 2/1 without risking exchange, but this still entails an unnecessary 20% chance of failure to delay the 4th Division. Force is necessary to guarantee the desired result, and 3-1 is the most economical force level.

In order to provide infantry for a possible exchange in the attack on 4/8, it is necessary to extend the attack frontage to square UU30. This entails some sort of soak-off against the remaining units of the 4th Division. Rather than limit our thinking to a perfunctory 1-2 against 4/12 from UU30, which would be easy enough, we have employed a degree of Finesse and converted the

soak-off into a significant attack in its own right, capable of probable damage actually greater than Mr. Thomas's main attack. We have selected 2/7 Panzer for this task, and VV30 for the jump-off point. ENGAGED here might well result in the eventual destruction of both 4/12 and 4/16, while CONTACT will effect further Reinforcement Delay on 4/12, by preventing 4/12 from moving out at the road movement rate. Meanwhile an ENGAGED result will impose no restriction on 2/7, whose panzers can withdraw at will. Note also the use of 150 Panzer in TT30. In the event of ENGAGED against 4/8 this unit will likewise be free to pull out and come in on the undoubled flank of 4/8 in SS31, or perhaps SS32. We feel that these tactics of Force and Finesse against the 4th Division maximize its possible Reinforcement Delay, while employing force levels consistent with pressing needs in other sectors.

Battle # 3 against 9/CCR —

The usual 8-1 Force against 9/CCR is employed. Since no ENGAGED is possible we do not need panzers, so the 116th and 2nd panzer grenadier regiments are employed with the infantry to make up the attack.

Battle # 4 against 28/109 (and the rest of the 28th Division indirectly) —

This attack can be said to employ Finesse in that less than maximum Force is used with a view to entrap and delay the remainder of the 28th Division. Although a 7-1 or 8-1 odds attack could be obtained the 6-1 was chosen because of the 40% chance of D BACK 4 in addition to 40% elimination (including exchange). The most desired result is not elimination, or an 8-1 Force would have been employed, but the D BACK 4 - A ADVANCE 4 (or 3). On closer inspection of a D BACK 4 result one can envision the 28/109 optioned either across the Clerf River toward Wiltz or into Clerveaux; the latter is the best. (The American does not have choice of retreat at MM28 which is not an intersection.) In two cases the A ADVANCE 3 would put German units in MM27, controlling the vital westward road out of Clerveaux, and in MM28 and in MM29 breaching the Clerf River. With the A ADVANCE 4 the German units could be placed on the river and road squares LL27, LL29, and MM30, which seals the fate of the 28th and thoroughly breaches an important defense line. Trailing units must be placed to insure the containment of the 28th. Notice that no attack has been made on 28/110 since any D BACK would only help free this U.S. unit (i.e. retreat through blocking terrain is possible whereas normal movement is not). 116/310 in 0023 prevents 28/110 from reaching MM24 by NN24, but 116/310 still threatens to move into Bastogne, if not blocked.

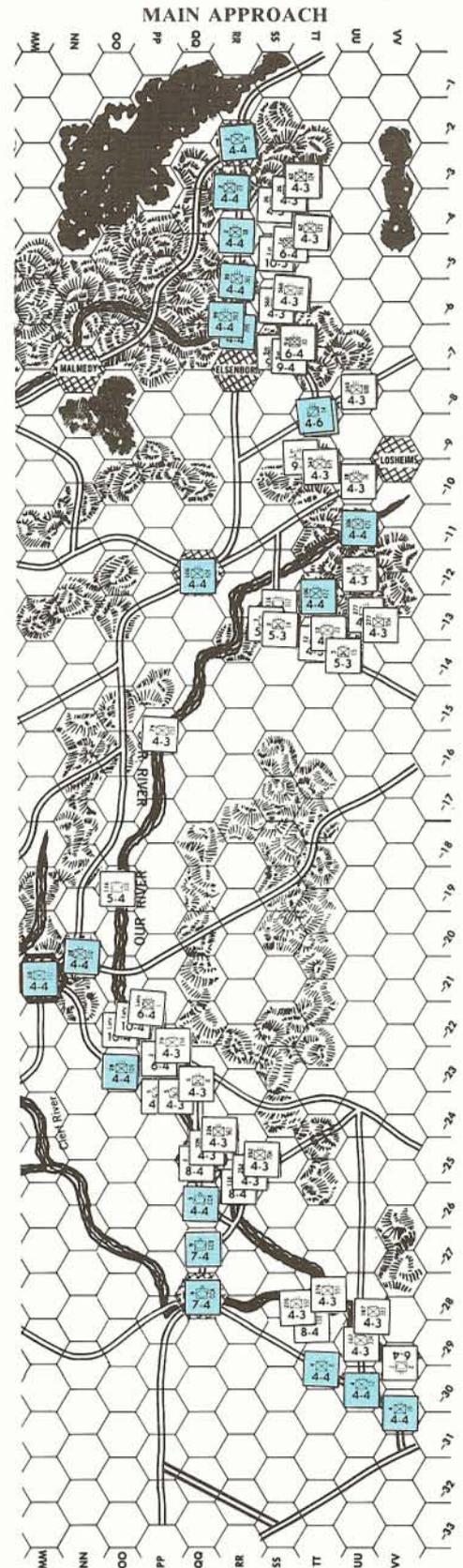
Mr. Thomas treated 28/109 and 28/110 with 2-1 attacks, obviously to cause Reinforcement Delay by ENGAGED while avoiding EXCHANGE. This has a 30% chance to delay each unit, or a 9% chance to delay both. If Mr. Thomas was lucky enough to get ENGAGED in both battles on the first turn and apparently try to surround and eliminate these in the second turn, this would result in a much slower push through the center.

Battles # 5 & 6 against 106/422 & 106/423 —

At first glance it might seem that there is little to distinguish between the positions of these two ill-fated American regiments in the Schnee Eifel. Thus many German commanders treat them both the same, hit both with 3-1's, and curse their luck when they get engaged. However, close examination of the peculiarities of the situation of each reveals that there are significant differences in the way each

affects the German offensive. These differences cry out for different means of handling each. The question is whether to use Force or Finesse?

106/422 is the only unit that is actually in a position to effectively delay the German advance, the only unit between the Germans and St. Vith. Thus a 5-1 surrounded FORCE attack is most desirable here because no ENGAGED is possible.



To be stymied at this point for even one turn might negate a breakthrough of the center. This positive elimination of 106/422 by turn 2 will spring several additional units across the Our River. 79/153 threatens to move on Houffalize or to surround 106/424 if it remains in St. Vith. Thus there is a good chance that the lone 106/424 will have to defend singly against 10 or more German units on a broad front; that is Unit Hunger!

106/423 is in a backward position of no threat whatever to the German advance. In no sense does it warrant the lavish expenditure on the first turn of a potentially embarrassing 3-1. Our 1-2 is the minimum attack possible, but it still has a 40% chance to destroy the defender by Turn 2 (either *D-back* or *contact* will achieve this result). An ENGAGED gives an additional 20% chance to seal the fate of this unit. The maximum economy of force of this attack helps permit the heavy surrounding and entrapment of the 14 Cav, which an experienced American will often move to SS10 or SS11 in a low-odds "fighting retreat."

We feel this combination of Force and Finesse in dealing with 106/422 and 106/423 is far superior to the quasi-force of the conventional brace of 3-1's often used here. It uses less force than two 3-1's. It guarantees that a major German force will not be needlessly tied down in ENGAGED results here. It guarantees the destruction of the units in the most favorable sequence. And it guarantees a massive assault on St. Vith in the second turn.

However, if the 1-2 attack is not successful (40% A BACK) 106/423 could be moved to TT12 and in combination with 14 Cav at SS11 could conduct a "fighting retreat" at 1-4 with only a 20% chance of immediate self destruction. But this 40% *A-back* is misleading since only the 106/423 could reach safety at St. Vith, with only 10% chance. Thus the overall chance that 106/423 will escape as a result of using a 1-2 against it on turn 1 is only 4% (10% x 40%). Any other results (96%) will leave both units in undoubled and/or easily surrounded defense positions for Turn 2. It would be more desirable to catch enemy units in such a manner than to attack the doubled and tripled positions confronted in Turn 1.

One must keep in mind that the 106/423 must survive "free" after the initial 1-2 assault to take part in such a fighting retreat, otherwise the 14 Cav is denied almost any chance of survival by heavy German units in TT11, UU9, and SS9. Note that 340/680 is placed correctly on UU9 instead of the common TT9. In the event of *Engaged* in battle #7, 14 Cav could counter-attack 340/680 at 1-2 by moving to SS10, whereas by the simple expedient of moving 340/680 to UU9, this nasty 20% possibility is eliminated.

Battle # 7 against 99/393 & 99/395 —

After trying several attacks we have ultimately decided to employ the less commonly used 4-1 Force. The reasons for this attack versus a 2-1, 3-1 (like Mr. Thomas), or 5-1 (the maximum obtainable) are complex, but will be clarified by examination of the first line results and the specific combination with the other described battles.

In the 2-1 results there is a readily discernible 50% chance of direct Reinforcement Delay, 3 ENGAGED and 2 CONTACT. With the available higher-odds results, these readily apparent Reinforcement Delays have diminished chance but the bigger *D back* results make higher odds attacks more forceful in reality. A CONTACT, although providing the desired Reinforcement Delay, would not seal the fate of 99/393 and 99/395 since they could be withdrawn into the mountain squares QQ9 or QQ10. In any ENGAGED situation the experienced American will probably counter attack hoping to effect a "fighting retreat" and get out of a

situation where he is undoubled and likely to be surrounded. However, closer inspection of the American counter attack odds, 1-3 against the German "2-1" force or 1-5 against the German "3-1" force (decreased to 1-4 and 1-6 respectively if the adjacent battle on 99/361 results in a German unit in the mountain square RR8), in both cases has 60% chance for a successful "fighting retreat." But the possibility of American self-destruction during the counter attack is increased from 0% (the CONTACT and ENGAGED will just delay this for another turn) to 40% with the German "3-1" force. However, with the German 4-1 or 5-1 force an American counter attack would be at less than 1-6 and thus not allowed. Since the overall German strategy is based on a critical time table and limited by supplies it is to the German advantage to allow the American counter attack only against the larger force or not at all. This increases the possibility of elimination of the American units in an undoubled position and possibly in Turn 1, which would allow the large German force freedom to pursue St. Vith or remnants of the 2nd Division in the subsequent turn.

The success of the German 3-1, 4-1, and 5-1 attack is also enhanced by the two EXCHANGE. Although the desirability of this EXCHANGE which the German normally dreads, might be controversial we feel that the undoubled EXCHANGE is better for the German. Especially in Turn 1 where the German takes advantage of initial American placement to punch through, paralyze some American troop movement, and surround other units, the German should indeed desire the direct elimination of the cornerstone of the American defense of the Elsenborn Ridge. This result cannot be described as direct Reinforcement Delay but the overall result is the same; the 99th cannot reach the St. Vith area before Turn 2!

Most importantly, however, the 3-1, 4-1, and 5-1 have additional chance of severe Reinforcement Delay of the entire 99th Division, 20%, 40%, and 50% respectively. The *D-Back* 3 results are very beneficial at this point. Under present rules the winner can determine the retreat route in any direction just as in the Basic Game except that retreating units must be moved along roads whenever possible. No intersection is involved. Thus the two American regiments could be optioned along the road to Monschau to square QQ7. Although the German units could then advance only into the vacated square RR9, due to the zone of control of 99/361, severe Reinforcement Delay of the 99th will still be effected by the guaranteed success of battle #8 to occupy square RR7. Therefore the Malmedy-Monschau road squares QQ7 and QQ8 will be controlled and the entire 99th denied any reasonable retreat.

Therefore, the 4-1 Force is chosen as the best compromise with an 80% chance to effect Reinforcement Delay, and 40% chance for "Permanent" Unit Hunger by Elimination. The more forceful 5-1, although providing 90% chance for Reinforcement Delay, only has 20% chance for unit hunger since the CONTACTs would allow American units to escape by simply moving to QQ9 or QQ10 and a large German unit would have to be lost in event of an EXCHANGE. If this could be viewed as a "weak 90%", the principle of economy of force would thus give preference for the 4-1 Force. Obviously a 3-1 is even less attractive since this is viewed as a "weak 70%". A 2-1 has only 50% chance to effect Reinforcement Delay, insufficient strength to effectively prevent an American counter attack, and most disastrous of all has the 20% A BACK.

Battle #8 against 2/38 -

In this situation it can be seen that the Reinforcement Delay of the entire 2nd Division can be achieved by a single attack on 2/38 from SS7 if an

advance into RR7 is obtained. This will push 2/38 toward Monschau (if it survives the attack) and then cut the Monschau-Malmedy road. I feel that Mr. Thomas had the right idea in his 3-1 attack on 2/38 from SS7, but it is clear that greater Force would increase the probability of obtaining the objective. Odds of at least 6-1 will guarantee this important result, but use of the optimum 4-1 in battle #7 means that with the units available, the attack frontage must be extended to SS6 to get 6-1. This entails an additional 1-2 soak-off against 2/23, but I feel that the guarantee of the crucial advance against 2/38 justifies this soak-off.

Battles #9 & #10 against 99/361 and 2/23 —

These last battles are necessary soak-offs precipitated by Battles #7 and #8. We see no way to gain clever advantages through Finesse tactics, and simply make the minimum 1-2 attack. However, there is a 20% chance of retreat and direct elimination of 99/361 if surrounded by Battles #7 and #8. Also a result of CONTACT will in all probability destroy this regiment if it is surrounded, while ENGAGED will just delay the agony.

Summary of Battles #1 to #10 —

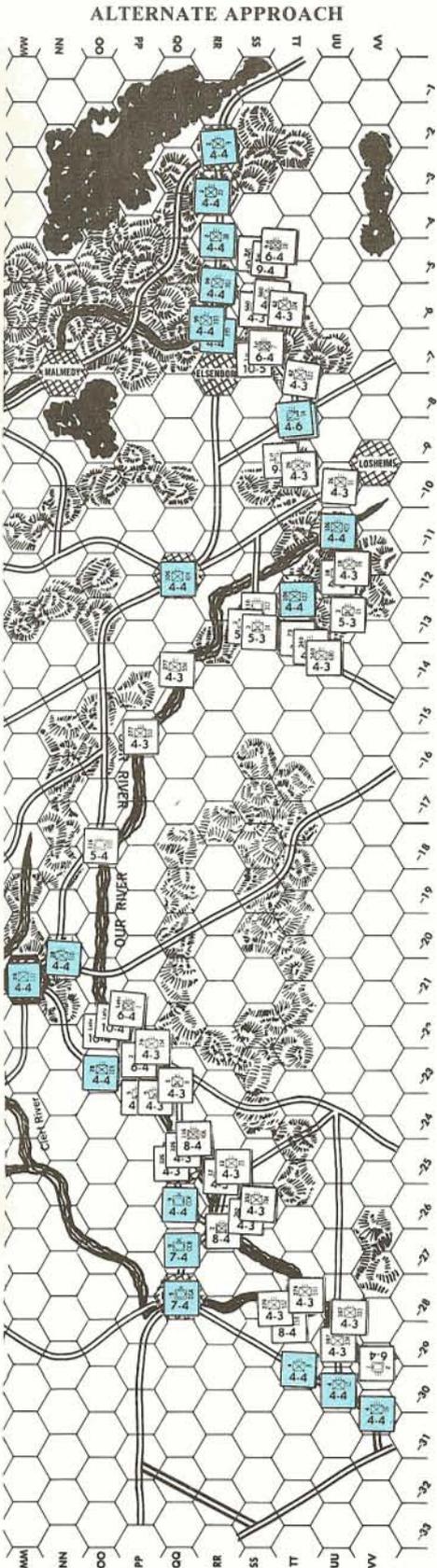
The full number of attacks is proposed with 4 possibilities of undesirable ENGAGED results (against 4/8, 106/423, 99/361, and 2/23). Even so, only the ENGAGED against 2/23 fails to do *some good* for the German. In the five battles where an EXCHANGE is possible, all contain infantry to absorb losses most efficiently. The 14 Cav is solidly surrounded and practically fixed in place, unless other units assist in a "sneakout." German supply lines are secure and enough units are left over to mount a major threat on the Our River (in conjunction with Battle #5). While the chance for a successful immediate breakthrough still revolves around the Reinforcement Delay of the centrally located 28th Division, as Mr. Thomas correctly discerns, the greater chance of success in this and other objectives greatly improves the chance of victory.

Alternative Approach —

One slightly different approach which also employs 10 battles is included to illustrate another Finesse attack which we considered and also to point out a rule discrepancy for Dr. Pinsky's rewrite consideration. Only two of the previously described battles are changed but extensive reorganization of specific unit placement is necessary (to agree with At Start conditions). The unit placements are included which show the battle against 99/393 and 99/395 reduced to a 3-1 odds and the soak-off against 2/23 is no longer necessary. 6-1 against 2/38 risks an unfavorable exchange here but is still more favorable attrition than 5-1 because of the *D-elim* at 6-1. The additional battle is a 1-2 Finesse attack on 9/CCB. The objective is to occupy square QQ30 thus obtaining control over roads passing through Diekirch as well as possibly forcing an early abandonment of the city itself. There is only a 20% chance of success but this will also affect the results of the adjacent battle. Of course ENGAGED or CONTACT are without value since the armored regiment can simply "withdraw". Notice that economy of force is practiced here since there is still only 20% D BACK in a 1-1 attack. If this attack is successful it provides a "surrounded" situation for the adjacent 8-1 battle and increases the chance of elimination of 9/CCR from 70% to 100%. If the result of the 8-1 was a D BACK 4 — A ADVANCE 3 (10% chance) the victorious units could be advanced to square OO31 adding to the pressure on the Clerf River defense line. This situation unveiled another ADVANCED rule question: Can some of the troops attacking 9/CCR also be advanced into QQ30 (which would now be occupied by 2/17)?

Although the CRT rule says "not into an enemy ZOC," the square is already occupied by a friendly unit and should be allowed as a "reinforcement." Force or Finesse?

Continued on Page 12



DESIGN ANALYSIS

PzKw VIa

ABS 3.2" 12

ABF 4.0"

GPRes 14

15 A 12

GUN 88mm L56 Eff Rng 3000m

AMMO 92 PEN 4.9" 2 MG 34

8 Wt 60.5t HPWt 11.6

THE HIDDEN SIDE TO THE COMBAT MATRIX
by J. P. Connolly

Professor Connolly mans the School of Engineering and Engineering Experiment Station at Auburn University from where he has witnessed the advances in wargaming over the past ten years. Although not an avid commercial wargamer, Mr. Connolly has done considerable research on game theory, especially in reference to matrix techniques. His "chalkboard" presentation is a definite must for those who wish to excel at 1776 and other games using matrix CRTs.

There has always been debate among game designers and players over the use of combat results tables (CRTs) in wargames. Naturally, such tables have been developed from the results of the conflict that is to be simulated. Thus, mistakes, personal opinions, luck, political decisions, strategic considerations, and general lunacy have all contributed to the CRT for any conflict.

Though everyone would agree some of the contributions must be retained for any semblance of historical accuracy, the CRT concept is still relatively inflexible. Primarily, it robs the wargamer of strategic/tactical assessment of the value of objectives. Where the field commander could put a premium on gaining or holding land, the wargamer has been at the mercy of the CRT. If it said retreat, he had to retreat.

The combat matrix concept provides the opportunity to use past results and yet give the player increased decision capability. The matrix gives both the attacker and defender the option of several choices, or strategies, in each combat situation. When these are matched through the matrix, the results are obtained to that combat.

A typical combat matrix is shown in figure 1 for attacker/defender odds of 1:1. The use of such a matrix appears simple and removes dice, but an understanding of the math behind such a matrix can allow the wargamer to improve his tactical control. There is a method to selecting the choice on a given turn, and this method can account for different assessments of the worth of combat objectives.

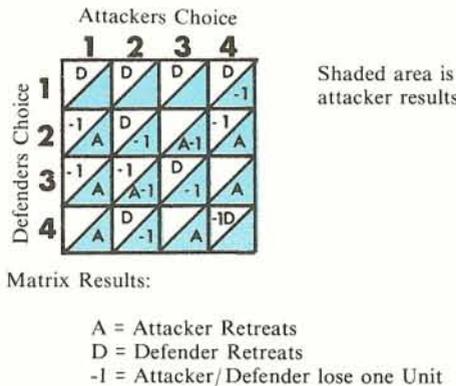
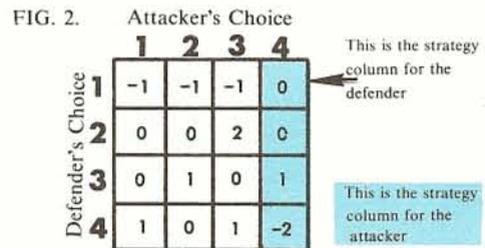


FIG. 1. TYPICAL COMBAT MATRIX

Let us first examine the tactical considerations facing a wargamer. On defense, or attack, his objective is land, time, or enemy casualties, or some combination of the three. Of these, casualties are readily quantifiable, thus land must be quantified in terms of troop units to insure compatibility in decisions. This process is done in the initial assessment of a specific situation by the wargamer.

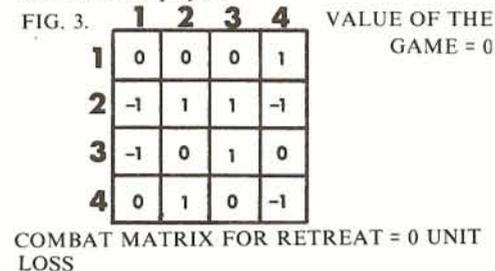
The next step is to evaluate the potential plays in terms of this assessment. Returning to the matrix in figure 1, let us examine the effect on player selection of matrix choice (one thru four) as the evaluation of the "worth" of land in the initial assessment varies.

If we first consider the value of the land part of the objective as one unit, then retreat is rated = -1 and enemy retreat as +1. The payoff of the combat matrix in terms of the defender then becomes that in figure 2 (note: payoff = gains-losses). Game theory states that the best mixture of choices by the attacker to assure minimum loss is 3:0:0:1. That is, he should play his matrix choices 1 and 4 at the ratio 3:1, and should not play choices 2 or 3 at all. The defender, meanwhile, to maximize his gains, should play 0:0:3:1. Game theory also tells us that if both play these optimum mixed strategies for selecting their choices, the defender will win, on the average, 1/4 unit per play. Conversely, the attacker will average that loss. But should either differ from these optimum mixes, the results will be less winnings (defender) or greater losses (attacker) on the average. The strategy ratios are shown in all remaining figures on the right and bottom of the matrix.



VALUE OF THE GAME = 1/4 UNIT TO DEFENDER Values are given for the defender
COMBAT MATRIX FOR RETREAT = 1 UNIT LOSS

If land is assigned zero value as an objective, the matrix becomes that of figure 3. The win/loss is now zero for either player.



Next, if the value of land is set at two units, the matrix changes to that in figure 4. As can be seen the defender's advantage increases his potential winnings to 5/7 unit per play.

FIG. 4. Attacker's Choice

		1	2	3	4	
Defender's Choice	1	-2	-2	-2	-1	0
	2	1	-1	3	1	3
	3	1	2	-1	2	4
	4	2	-1	2	-3	0
		0	4	3	0	

VALUE OF THE GAME = 5/7 TO DEFENDER
COMBAT MATRIX FOR RETREAT = 2
UNITS LOSS

Finally, if the value of land is increased to three units, figure 5 gives the matrix and strategies of play.

FIG. 5. Attacker's Choice

		1	2	3	4	
Defender's Choice	1	-3	-3	-3	-2	0
	2	2	-2	4	2	5
	3	2	3	-2	3	6
	4	3	-2	3	-4	0
		0	6	5	0	

VALUE OF THE GAME = 8/11
TO DEFENDER
COMBAT MATRIX FOR RETREAT = 3
UNITS LOSS

These examples show that assessment of the worth of the objective can materially affect the subsequent choice of plays. As the value of land went up, the strategy of defender shifted from playing 0:0:3:1 to 0:3:4:0, and then to 0:5:6:0. If the defender wanted to hold the land he could play choices 2&3 @ 0:5:6:0, and if he wanted primarily to inflict casualties his choices would be 3&4 @ 0:0:3:1. This change is not possible in the CRT. Yet all the data in the combat matrix can come from historical records as does the CRT data. (Note that to obtain the odds 3:1 or 5:6 the player needs some kind of a chance device.)

Using this concept both the results of using land or casualties as the objective can be evaluated by the wargamer as he sets his strategy of play. Obviously, the attacker and defender can then play strategies based on their assessment of the value of the objectives. The outcome of combat is still probabilistic, but a little more control of the situation is given to the wargamer. If you want to convert a standard CRT to a matrix, it can be done as per figure 6. Unfortunately, since the resulting matrix is symmetrical, the strategies will not change as you vary the assessment.

By now you have recognized the primary drawback to the combat matrix concept, the construction of the matrix. The mathematical process for developing a matrix is far more complex than the statistical data collection required for a CRT. The example presented is a good design, but note that at no time were more than two choices optimum at any value assessment level.

The future of the combat matrix in wargaming will depend on the ability of designers to develop non-symmetrical matrices that contain the capability of variance with assessment changes.* This is a complicated task, and will require the designer to

understand game theory and how it relates to the problem.

Since both design and analysis of combat matrices will then be tied to game theory, it behooves the serious wargamer to understand the basic application. To this end, there are several books that allow one the capability of analysis using only basic arithmetic.

Designers should not ignore the combat matrix for it certainly offers more flexibility than the standard CRT. If nothing else, it gives the opponents a sense of matching wits, something lacking in the throw of dice.

*Odds (attacker: defender) can be incorporated into the combat matrix by algorithm, such as:

$.7n(n-m)$ where: n = attacker strength
 m = defender strength
— and: + answer means defender loss
- answer means attacker loss

Poor Wargamer's Computer

			B's Choice					
			1	2	3	4	5	6
A's Choice	1	1	6	5	4	3	2	
	2	2	1	6	5	4	3	
	3	3	2	1	6	5	4	
	4	4	3	2	1	6	5	
	5	5	4	3	2	1	6	
	6	6	5	4	3	2	1	

by Dr. J. Connolly

The May-June 1974 issue of *The General* carried an article by George Bradford with the plans for a matrix results computer. However, for those of us who liked the idea, but lacked talent or financial means, or who have opponents so unscrupulous as to peek to see which switch we are going to throw, the following development of the Poor Wargamer's Computer (PWC) is freely presented. Since it is cost-free, it should be viewed with some misgivings as such a low value in today's society generally means shoddy merchandise.

The PWC shown below is developed for a CRT that has six possible probabilistic outcomes, i.e., the die roll results in six possibilities. Note that both A and B have a choice from 1 thru 6. Also note that the 6x6 matrix is filled with the numbers 1 thru 6 in a symmetrical fashion. These represent the equivalent die-roll to be used in obtaining results from the CRT. The operation is as follows:

Opponents A and B each select a number from 1 to 6. These numbers are then cross-matched in the PWC to obtain a numerical value. This value is then taken, along with the odds, to the CRT and read off the die-roll results side.

For example, if A picks 3 and B chooses 5, then the PWC gives 5 as the number. So, A and B then look back to the CRT under the appropriate column for odds and see what results occur if a 5 had been thrown on the die.

The expansion of this table to a 8x8 or 10x10 is simple and allows one to use this approach for games with more than only 6 possibilities, such as *PANZERBLITZ* or *1776*.

Why go to this trouble when you can simply throw a die in the first place. Well, this method gives both the attacker and the defender a part in the combat outcome. No longer can you claim that the dice did you in. Half of every result was your fault. Also the method works well when you have lost your dice or haven't room to throw them with "skill."

In the past, we have also used this approach to give a morale factor to the player who successfully kept results his way for three throws. This would mean on defense, he got a 3 or less, and on offense a 4 or more. This factor ranged from rounding up in the odds table to a reduction in losses from the CRT (depending on the game).

In any event, if you enjoy the head-to-head confrontation and subtle matching of wits associated with wargaming, then the PWC adds to the fun.

Everything . . .

Continued from Page 27

basis for simulation of the proposed subsystem. By applying cost-effectiveness measures discussed earlier, alternative modifications could be screened to determine which deserved further development.

Since the application of VIM provides one composite measure of effectiveness — combat power — it would be feasible to directly compare and trade off unlike systems on the basis of the costs necessary to attain a desired level of combat power. The use of techniques similar to the cost-effectiveness measure could help determine how to effectively allocate resources between diverse options such as costly major improvements in the operations subsystem, intelligence subsystem, support subsystems, or additions to firepower resources of a force.

Although VIM is promising, it should be remembered that the results of VIM are not fine measurements. Successive approximations and subjective evaluations are required to determine when both forces are combat equivalent; therefore, VIM is best suited for measuring large changes in the intelligence that may have a significant impact on the effectiveness of a force's firepower resources. Also, the ability to apply VIM to the development of force structure is dependent upon the simulation's ability to effectively represent the systems being studied. To date, insufficient validated data has been compiled on the performance of collection subsystems and the processing of data into intelligence. The nature of current and proposed intelligence subsystems must be better understood by collecting and analyzing data on their performance. Testing done at MASSTER, combined with performance studies of the intelligence subsystem and developmental computer simulations, can become a source of this data.

France '40

Continued from Page 18

avoid battle while delaying by falling back to points which are 4 movement points away from the infantry and 6, from the armored units, until they are joined by their comrades from the south. With the northern element of British and some French infantry, send the "cheap" armored units—the 1-6's, 2-6's and 3-4's. They are good for delaying and plugging holes. Keep the good armor—the 5-6's and 4-6's—together in the middle. Do not commit them to the defense unless necessary, but save them for opportunities to break through and encircle unwary Germans. Watch his flanks—if he leaves the Maginot line area lightly guarded, try a breakthrough and go for his air units. Even if the opportunities do not develop, you can keep him more honest that way, as he'll be worrying about them.

The outcome of a game developed along these lines usually is determined by the die. It is a well matched contest, presenting a maximum of challenges to the skill of both players. And for the skeptic, it is a game which reflects a not too far fetched "might have been".

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SARATOGA

A BRITISH SUCCESS

by J. Richard Jarvinen

game. I have established what I believe is an excellent disposition of the British forces.

May Deployment

Burgoyne's troops, starting at St. Johns in Canada, are the easiest to deploy. Using your bateaus, you immediately transport ten Strength Points (hereafter designated SP) to lay siege to Fort Ticonderoga. Move (by land) your single Indian unit also to Fort Ticonderoga. Do not risk a 1-1 attack this month as there is still time to wait for your slower moving artillery and supplies to catch up with the main force. Two SP from St. Johns will accompany the artillery and supply units traveling down the west side of Lake Champlain. The remaining two SP will wait in St. Johns for the supply unit scheduled to arrive at Montreal in June. This unit at St. Johns will also deter the American militia entrenched at Mt. Independence from venturing north and interfering with your arriving supply.

Deploy the units in New York City in the following manner: Eleven SP and the artillery unit should move to and attack the American fort at West Point (the artillery cannot participate in the attack without a supply unit, but is placed there for the future defense of the fort); eight SP and one supply unit will move to and attack Fort Constitution; fifteen SP and one supply unit will make a sea landing on the coastal hex located southeast of Princeton and south of New York City; one SP will move to the hex immediately south of West Point, leaving one SP to preserve your entrenchment marker in New York City. The units attacking Fort Constitution and West Point should occupy these forts after the defenders have been eliminated. If the American has left his unit at West Point inside the fort, peel off one SP of the attacking force and send it up the west side of the Hudson River. It can then attempt a forced march to capture the unguarded supply at Albany.

The third force, from Oswego, will not materialize until St. Leger and his supplies arrive in July.

May Analysis

Now, what have we accomplished? In the north we have ensured the fall of Fort Ticonderoga in the coming month of June. The defenders cannot escape, nor can they be reinforced. The militia unit at Mt. Independence cannot penetrate into the fort to aid the defenders and cannot go north because of the larger British unit. To remain entrenched would be certain destruction. The only viable alternative is to run off to the mountains for safety.

In the south we have captured two forts without loss. (Be sure to make only the first attack on Fort Constitution supplied so that you may keep your supply unit.) The units assaulting the coast are prepared to move on Philadelphia, crossing either at Cooper's Ferry or McKone's ferry. They also directly threaten the American force at Morristown. The unit south of West Point prevents an easy American incursion across the Hudson River, and also has a harassment function that will become clearer on the next turn. The American dare not

attack this small exposed force lest he expose himself to a vicious counterattack by the combined British forces in the area. The American units at Morristown are now faced with the unpleasant decision of going south to aid in the defense of Philadelphia or to mimic its brothers in the north and run from harm's way deep into the wilderness. Defending Philadelphia would be a dubious decision at best. It is not a critical town, and it would remove the bulk of the American forces from the main theater of operation. Also, sufficient British strength could be brought from West Point to force its retreat even further. Faced by attacks on two flanks, it cannot stay at Morristown and thus must quietly disappear into the trackless forests of Pennsylvania or New York.

The American supply unit at Albany (if not already captured) is also in dire straits because of the rapid British advance. Fort Stanwix is not even a completely safe haven as a daring British commander can reach it from either West Point or Fort Constitution by a forced march.

June Deployment

The June disposition for Burgoyne's northern expedition is easily assessed. The supply, artillery, and troops from St. Johns will arrive at Fort Ticonderoga to take part in the initial attack. At 3-2 odds with artillery support, the possibility of failure is negligible. The supply unit arriving at Montreal will be sent down the west side of Lake Champlain, accompanied by the British force waiting at St. Johns.

The disposition of the southern force is primarily a reaction to the American response on the first turn. It may appear that the American, using inverted and decoy counters, has completely disappeared, but evidence of his position does exist. Not being able to hide his valuable supply unit, he will undoubtedly protect it with the major part of the original Morristown force. In the unlikely event he has this unit in the Philadelphia-Morristown area, you should immediately attack, as destruction of this force will secure the southern sector and release these British units for the coming assault on Albany and Fort Stanwix. The other, and more probable, alternative is for the American to hide deep in the hills, as mentioned earlier. This fact would be revealed by the location of his supply unit and by the conspicuous absence of his artillery unit, which he has been forced to destroy, as its slow movement would make it vulnerable to capture either by units from the New Jersey coast or the small unit stationed just south of West Point.

Assuming the American has chosen the prudent strategy of flight, dispatch five SP from the coastal assault group to seize and occupy the colonial capital of Philadelphia. The remaining units will travel to the hex north of Morristown, uniting with five SP sent from West Point. Fort Constitution need be garrisoned only lightly (one SP is sufficient), while West Point will have six SP remaining of the original force plus seven SP sent from Fort Constitution. The supply from Fort Constitution and the artillery unit already there will complete its garrison. The single British SP south of West Point will be sent after the fleeing Americans in order to harass his supply and gather intelligence of American movement. The one SP in New York City will remain there.



The American Revolution, with its multitude of skirmishes, battles, and campaigns, offers the wargame designer and player alike a wide selection of conflicts from which to choose. Avalon Hill, with its release of *1776*, has enabled us, as wargamers, to recreate most, if not all, of the major conflicts of this stormy period. One of the more interesting of these engagements was the British offensive of 1777 in New England, presented as a scenario in *1776* known as the Saratoga Campaign. The original British operation ended in a dismal failure, but I believe that a British commander, with proper disposition and coordination of the forces available, can win this conflict in almost every encounter. But before going into the details of my plan, a little background is necessary.

The Original Campaign

The British strategy was to launch a three-pronged attack in New England, intending to seize the Hudson River Valley and split the colonies in two. General John Burgoyne, who had originally conceived the plan, was to move south from Canada via Lake Champlain, while General William Howe was to move north from New York City, joining Burgoyne at Albany. A third column under Colonel Barry St. Leger, moving up the St. Lawrence to Lake Ontario, would land at Oswego and, in conjunction with Iroquois Indians and Tories, sweep down the Mohawk Valley to unite with the others at Albany. This was an attractive plan, and if executed well, could have meant an early end to the budding revolution. Unfortunately, with typical British coordination, General Howe's force (now under General Clinton) failed to continue its advance and returned to New York. St. Leger's small group was turned back by Benedict Arnold's advance. (He was still a good guy at this point in time!) Burgoyne and his 5,700 men now found themselves surrounded by an American force of more than 15,000. He had no choice but to surrender, thus ending the British hopes of securing the New England colonies. As a direct result of this action Fort Ticonderoga and Crown Point were evacuated; Clinton abandoned the Hudson highlands; and not the least important result was that France, delighted by the American victory, recognized the independence of the United States, a forerunner of her active participation in the war.

The New Campaign

Despite the crushing failure of Burgoyne's plan, it still remains a good one in theory. Given an English commander of any competence, I believe the original plan, with only slight modification, has an excellent chance of success. As in most games of skill and maneuver, the opening moves are critical and generally dictate the course of the rest of the

June Analysis

Using Burgoyne's original plan as a springboard, we now control Philadelphia, New York City, West Point, Fort Constitution and Fort Ticonderoga. Albany is threatened on two fronts, and the American forces are scattered throughout New England. We have destroyed a minimum of seven enemy SP, captured an enemy artillery unit at Fort Ticonderoga, and forced the American to destroy another at Morrystown. The American army is badly pressed and British control of the Hudson River Valley seems imminent.

July Deployment

St. Leger's troops and supplies arriving at Oswego should remain there, assuming the fort hasn't already fallen to an aggressive American commander. The units at Philadelphia should entrench themselves. The Morrystown group should attempt to search out and destroy the American force suspected of operating in that area. The British reconnaissance unit may be invaluable in locating the American. Do not, however, overextend your larger British force as they will be needed in August at West Point. The Indian unit at Fort Ticonderoga would also make an excellent scouting force, due to its greater mobility. A garrison of eight SP, coupled with a supply unit and three artillery units, should make Fort Ticonderoga impregnable. The remaining units from Fort Ticonderoga should be sent down to the Albany area to harass the American reinforcements.

West Point should maintain its garrison of thirteen SP, an artillery unit, and a supply unit. Fort Constitution should keep its minimal garrison.

July Analysis

In three months we have achieved our primary objective of seizing and securing the three strategic towns necessary for a British victory. We have established a substantial garrison in Philadelphia, leaving us only the final problem of capturing either Fort Stanwix or Albany to fulfill our victory conditions. It is unlikely that the American would try to recapture Philadelphia because of the large force necessary to do this and because of the remote location. If he does make an attempt, we would then concentrate our own forces on the dangerously weakened Albany-Fort Stanwix complex.

Final Considerations

Any specific dispositions of forces after July would be conjecture at best, but a general outline of the strategy for the remaining four months will be presented. The large British force near Morrystown should be brought to the West Point area to replace units that have been ordered elsewhere. The West Point force will march to Albany, uniting with the group operating out of Fort Ticonderoga. This will prepare you for a push on Fort Stanwix, if weakly defended, or to establish control of Albany.

Wherever possible, try to wear the Americans down, even if you have to attack at 1-1 odds. Forcing him to use his supplies and causing even small casualties will seriously weaken his final attempt to recapture a fort or city. Under no circumstances, however, should you weaken your garrisons in West Point or Fort Ticonderoga. Loss of one of these key points will surely cost you the game.

If the original American force from Morrystown still exists, try to prevent it from linking up with the heavy American reinforcements due in August and September. As long as the American has his units scattered and separated, he can present no immediate danger to your heavily fortified positions.

While this plan does not guarantee a British victory, it does offer a capable English commander a far greater chance for success than Burgoyne had in 1777.



The FRANCE '40 That Might Have Been

by Dean Miller

Perhaps more than any other game, *France-40* is one of 'what might have been'. It has a wide variety of OB's for both sides from which to choose. As a result, players who wish to pursue the "what ifs" of this conflict can in effect let their imaginations run wild in devising the configurations of the opposing sides. From my experience, most players of this game fall into two groups: the masochists/sadists who play only the historical OB's; and the free thinkers, who match a fully mechanized Allied army against a similarly equipped German one.

Never having been a lover of science fiction, this latter course is of even less appeal to me than the former. I have preferred to play the limited number of what I regard as realistic alternatives to the historical matchup—those based upon German OB 6. Students of the period can easily conclude that there was nothing less likely to occur than the German-Russian non aggression pact. While the two dictators' short term interests were well served by such a pact, such was the nature of the beasts as to make each somewhat untrustworthy in the eyes of the other. Add the perpetually scheming and suspicious natures which their position in life had given to Stalin and Hitler, and it is hard to believe that they would enter into such a pact, or place much reliance upon it when put into effect. Therefore, I find the alternative state of affairs reflected in German OB6 to be most believable.

The same skepticism obtains as to the high-powered Allied OB's. It is simply straining history too much to assume that the between the wars "leadership" of France would allow a Guderian to come to the fore (or a DeGaulle, if you will), or that they would accept the idea that a fortress line would be out of date in a modern war. However, even if you are to accept these premises, I believe the OB's are faulty, in that they continue to assume that the French divisions will be inferior to their German counterparts. After all, the French tanks were superior in most respects—and once we assume different leadership, how can one conclude that the French infantry would be less effective?

Thus I find Allied OB's 10 and 8 to be the ones which are easiest to swallow, next to the historical one. The playing of these OB's against German OB 6 can lead to some interesting conclusions. For example, even with the reduced German strength, only an incompetent loses to the Allied historical OB. And the matchup with the increased airpower of Allied OB 10 should prove to most gamers how wrong Douhet was. But German OB 6 vs. Allied OB 8 makes for a fairly even match, and is the one I prefer. There is a better than even chance that the German will still win against the earlier-rearmed Allies, but not in very satisfying fashion. Quite frequently the Allies will keep the Germans out of France and much of Belgium, although often at the cost of many lives. The inherent advantages of the German infantry over the French—a 7-6 is much more than a little better than a 6-6—usually result in a higher loss ratio by the latter, which often will give the game to the Germans on points. But it is not a sure thing, and occasionally the Allies win—sometimes even launching an invasion of German soil. The result will often leave one thinking: "If only the French had gotten off their butts a bit earlier and begun to rearm. . ."

The German, faced with the imposing—numerically, anyway—array of Allies, usually has two things forced upon him.

First, he must be somewhat conventional. In view of his limited resources he must eliminate the Dutch and get in a couple of good whacks at the Belgians before the French and British arrive. Invasion of Holland is necessary, although it is tempting to reduce the frontage which his reduced numbers must cover by leaving the Dutch alone. For one thing, he needs the victory points which the three Dutch units represent. For another, confinement to the French and Belgian border is so stifling to his own offensive capabilities as to be more of a burden than a benefit. Holland is a necessary springboard for the type of attack the German must make across Belgium.

For the German must try to avoid stalemate. 1914 must always be in his mind—it is a very real possibility unless he can break through, encircle, and eliminate a decisive number of Allied units. If this is to be done, it must occur early in the game—time is with the Allies. And the terrain best suited for this maneuver is the Belgian plains, which in turn is easiest reached through the Netherlands. The result is that the German must concentrate his panzers and about half of his infantry for a drive across Belgium north of the Ardennes. You can hear von Schlieffen clucking "Ya" as you set up! The German should retain one armored corps to drive through the Ardennes with the rest of the infantry. One 6-8, one 4-8, a 3-8 and a 2-8 should suffice. These will give the capability of exploiting any breakthrough possibilities there and filling in temporary gaps in the lines. Occasionally, these forces can serve as a "weak claw" in a pincer movement in conjunction with the bulk of the panzers in the north. In addition, this keeps them near Sedan and the Maginot to exploit the unlikely possibility of a breach there. In so doing, these forces keep the Allied player "honest" to a degree. Of course, a couple of units must also guard the French border opposite the Maginot, along with the artillery.

The Allied player should retreat and delay, and seek to unite as much of the Dutch and Belgian armies with the French and British, as can be extricated. His initial placements should be attack-proof. Put the Dutch units on hexes 522, 523 and 524. Put Belgians at 525, 494, 495, 529, 531, 530, 500, 469, 438, 407 and 377. Put French 6-6's in the Maginot line hexes 154 and 185, and a 2-2 in 217, with the other 2-2's in reserve just behind the forts. This way the Germans will be unable to attack on move 1, except the Maginot line hexes, where it will be impossible to destroy the forts. Place the rest of the infantry in position to move forward to join the Belgians and Dutch at the earliest point. Although some players like to put the British infantry into the Ardennes where the extra movement factors are useful and it is harder to lose these units, with their high victory point values, to low odds attacks, I've tended to prefer to use them in the north because of the greater speed with which they can cross the Belgian plain and meet the Germans. The retreating Dutch and Belgians should continue to attempt to

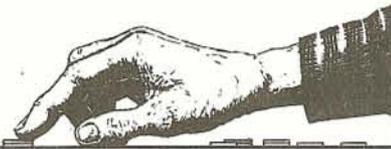
Continued on Page 16



SERIES REPLAY

STALINGRAD

Russian: Donald Greenwood
 German: Randy Reed



The Series Replay this time around is a bit unusual in many respects. An immediate difference is noted in that there are no player comments—only the turn by turn analysis of our neutral observers. This is due to the fact that the game we are depicting on these pages is almost three years old and was commenced before the Series Replay concept was ever evolved. However, we imagine that readers will find it of interest if only because they feel they can improve on the efforts of our designers. In all fairness to these individuals it should be emphasized that neither player was aware of the possibility of his play being exposed to such expert scrutiny.

In addition, Mr. Reed professes no great amount of expertise in this particular game; his real forte being BATTLE OF THE BULGE. Yet, when we chanced upon these old PBM moves the stage had already been set for a play with a unique caste, if not an outstanding plot.

GAME ANALYSIS

By George Phillis and Mark Swanson

RUSSIAN SETUP: For the most part a classical Russian defense. The 28th in the bend of the Prut at NN14 is out of range of Brest, assuring the Germans of a 3-1 there on their second turn. The 22nd and 42nd are undoubled and may be attacked frontally. The 15th armor, behind the San, may be attacked from the river squares, allowing the Germans to advance onto EE12, thereby depriving the Russians of a delaying position. All in all, this is a respectable defense, even though it does have some flaws. Exchanging the positions of the 28th and the 4th (6-9-6) would have relieved the Russians of later potential difficulties.

GERMAN JUNE: The German has done a number of unusual things and made a number of mistakes. He has only 2 weak units on the Hungarian border (MM-8,9). These two units will afford the German little assistance in his attacks out of Rumania. The German's force in Rumania is too weak to attack frontally across the Prut. Since there will be no units in Hungary able to assist the Germans in attacking the Carpathian mountain chain, the German forces in Rumania will be unable to flank the Prut river on its northern end.

The 1-1 on the Nemunas seems a bit premature. The Russian is always the strongest on the first turn; the Germans can afford to wait a few turns before launching this rather chancy sort of attack.

The German has put up a rather weak defense in Finland. A 6-strength armoured corps may be of use against a very weak Russian attack, although it is not at all clear that it helps the German to tie down an armoured corps in Finland for the rest of the game. (Against a strong Russian army, such as this one, the German deployment is probably a mistake. The Russians can attack the 6-6-6 inside Helsinki and kill it. The remainder of this defense is also weak—the Russians can surround one of the Finnish units. By transferring the two Finnish units North of the lakes one square North, the Russian's position is much improved.

The major difficulty with the German position at this point is the distribution of his forces, especially of his armor. He has left only 6 armoured corps on the central front. The one in Finland will contribute little to his position. The three 8-8-6's in Rumania constitute a great liability. They are too weak to attack out, and their absence on the central front

will mean that the German army in the center is gravely weakened.

RUSSIAN JUNE MOVE: The Russian attacks in Finland met with bad luck. However, the attack along the IJ-file is a turn ahead of schedule; the Germans defended on I29 rather than the more reasonable I30. The doorway into Finland has been pried open by the Russian attack.

The errors in the German initial placement have caught up with them. Because the German has put so much armor into Rumania, he cannot make a 3-1 on the 6-9-6 or either of the 7-10-4's. A single 5-7-4 can hold a pair of river squares and be 3-1 proof. Unfortunately for the Russian, the 17th Inf. which is immediately South of Brest-Litovsk, is only a 4-6-4. The Germans can make a 3-1 on it, while simultaneously surrounding the 16th infantry (on Y16). An advance across the Bug River onto BB15 then forces the unit in Brest-Litovsk to attack (with no retreat, against doubled defenders) and breaks the Bug River.

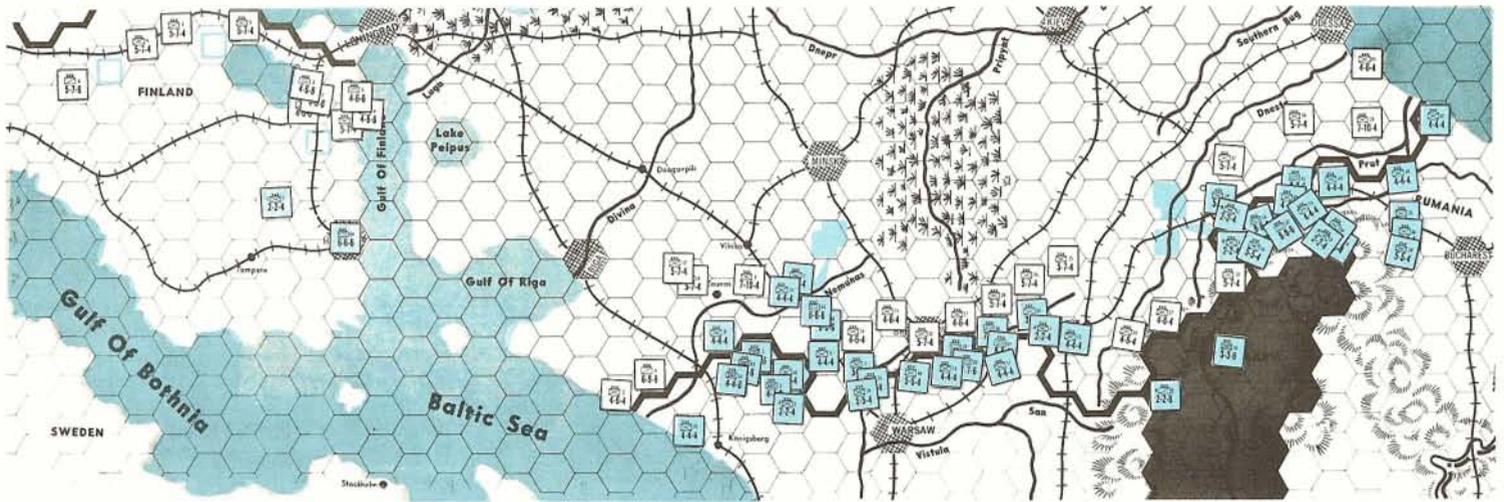
The Russian defense of the Carpathians is flawed. The weak units already in Hungary permit the Germans to surround the 10th infantry. The Russians could have avoided this difficulty if they had placed another 5-7-4 with or next to the 10th Infantry; the Germans would then have needed the 3-3-6 as a soakoff. Without that 3-3-6, the Germans only have 41 factors available to attack the 10th infantry, permitting them to make only a 2-1.

The northern 1-3 attack ties up a substantial number of German units behind the German lines. Consequently, the Germans did not have the units to soakoff against Z16 (leaving a unit in Z15 at the

JUNE, 1941: The Germans open aggressively with automatics vs. the 2, 7, and 15th Armor and a 3-1 exchange on the 42nd and 22nd Infantry. The required 1-2 soak-off escapes and is

retreated to NN12. To the north they have less luck as the 1st, 4th and 6th Infantry are lost in a 1-1 attack across the Nemunas. The 11th Infantry is also lost in the 1-6 soak-off.





JULY, 1941: The Russians react strongly in Finland, wiping out FX1 and FX2 with 5-1 attacks and eliminating another 8 Finnish factors with a successful 3-1 against I29—a strong blow to German chances. But the German resorts to chicanery in his July move—successfully pulling off the old soak-off envelopment trick where units must retreat behind enemy lines due to maximum stacks in their rear. Consequently the 23rd and 7th Infantry survive their 1-3 against

the Russian 3rd and retreat to X19. The Red 16th Infantry is crushed in a 5-1 as expected. The main German attack (a 3-1 vs the 17th Inf) results in a DB2 with 4R surviving the 1-3 soak-off to the south. The German's good fortune continues in Rumania where both his 1-2 attacks are rewarded with the desired AB2 "retreating" the infiltrators to HH14 & 15.

end of their turn). This move, coupled with the advance into BB15 which the Germans mysteriously neglected to take, would have surrounded the unit in Brest-Litovsk.

The German chose to hit the 10th Infantry (holding the southern end of the Carpathians) at 1-2 rather than 3-1. This replaces a sure attack with a rather chancy one. Furthermore, the German units in the attack are now trapped on a river square behind Russian lines, where (especially if only one of the 1-2's works) they can be surrounded (a 5-1 and a 1-2 attack then disposes of them).

The German has stack after stack of units in Rumania which he is not using. He has additional stacks tied up near the Nemunas trying to bootstrap units through the Russian line into the Russian rear (where those units would be surrounded and destroyed). The German is matching his original faulty placement with an equally bad use of the resources that he has, overlooking chances to advance across rivers, surround Russian units, and take available 3-1's against key positions, such as JJ12. We have noted that the Russian defense has its

faults (for example, it allowed Brest-Litovsk to be surrounded and unnecessarily permitted a 3-1 on JJ12). However, an error not taken advantage of by one's opponent is a nullity.

GERMAN JULY MOVE: The German has tried a series of 1-2 envelopment attacks both in the north and south. The units in the north should end up being retreated behind the river, where it can be surrounded and attacked without retreat. Furthermore, the backup units for this 1-3 attack would contribute substantially to the attacks made near Brest-Litovsk.

RUSSIAN JULY MOVE: The Russian responds to the 1-3 attacks in the usual manner. He surrounds the units and destroys them. It must be said that the Russian moves to destroy these units were less than perfectly executed. In the south, the Russian should have put the 5-5-4's and the Rumanian on HH15 and the other Rumanian on HH14. Then, the Russian could have made a 5-1 (no

retreat) on each of the Rumanians, a 1-2 (no retreat) on the two Germans, and left the 10th Infantry on JJ12.

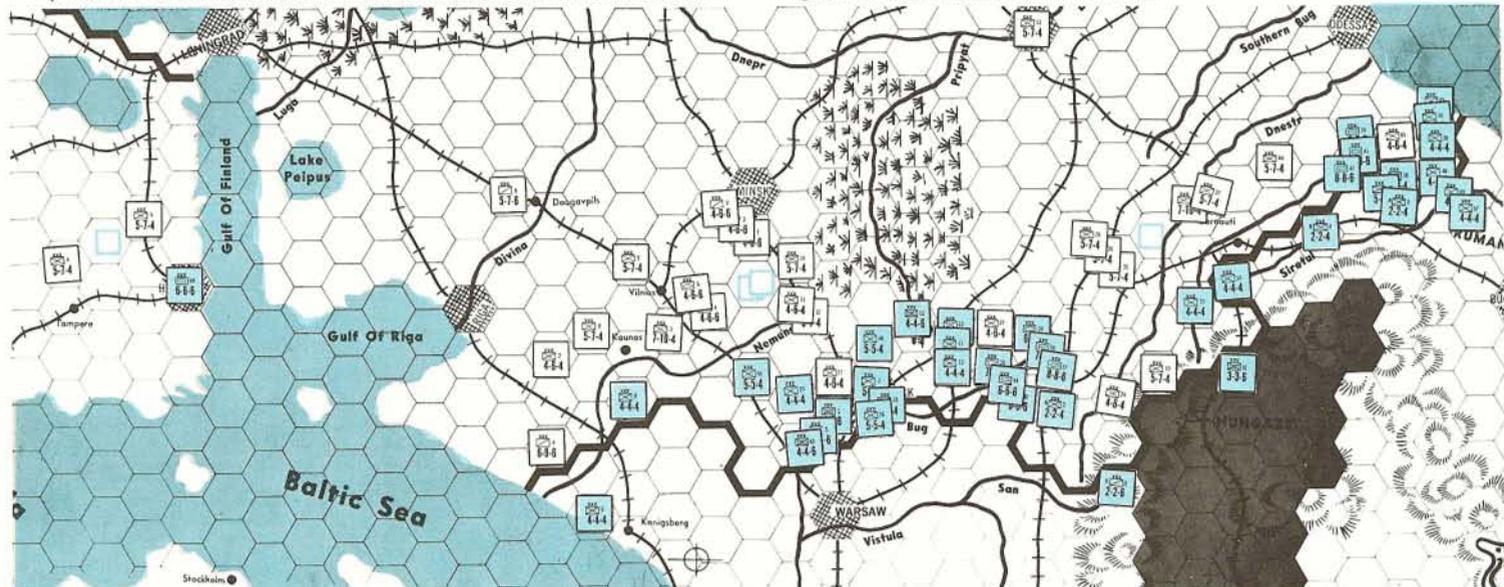
In attacking the Germans behind his line, the Russian should move the 36th Infantry from II15 to HH16. This move illustrates four basic principles in dealing with 1-3 envelopments:

a) If possible, such attacks should not distract the attention of the defenders which have been surrounded. They should stay in position, holding the line, while the surrounded Germans in the rear are dealt with.

b) A stack surrounded behind Russian lines cannot be used to undouble river positions if all of its units are forced to attack at 1-3 or less. The result of the alterations I describe would force the German 1R and 3R to attack at 10-42 (1-5), if a separate attack was made on the 7-10-4. The German could not soak off with one 5-7-4 and use the other one to undouble the 7-10-4 because the first 5-7-4 would have had to attack at 5-42, which is illegal.

AUGUST, 1941: The Germans have forced the Russians into early counterattack situations but fortunately for the Kremlin the Finnish front is all but over practically before it starts allowing massive reinforcements to the Nemunas. The Russian garrison force in Finland polishes off FX7 at 5-1 surrounded while their comrades do a like number at 4-1 on the

surrounded German 7th and 23rd. To the south the German 1R, R1 and R5 infiltrators are dispatched at 3-1 surrounded while the 3R escapes a similar fate at low odds by retreating the Russian 10th back 2 to HH12. The German August turn is merely a collection of the Russian's gifts with automatics vs 17, 27 and 65th Infantry.



c) In dealing with a surrounded attack, it is better to kill part of the stack and force the rest to attack at low odds without being able to retreat. If one attacks the stack as a whole, one risks a large exchange. It is often possible instead to take a soakoff and a safe attack, with fewer expected casualties.

d) In face-to-face play, one cannot randomly retreat units making envelopment attacks. This is less important in PBM play, where one can change attacker's retreats around to put the attacker's units in the best positions, but in face-to-face play the attacker's units must be retreated before the defender starts to move.

The counterattack against the surrounded German units in the north was more poorly handled. The Russian 11th and 12th Infantry units will be on the Nemunas River. The Russians can counterattack, but they must soakoff to do so. If the Germans had been retreated onto the River (Y18), the Russian would have been able to attack the German units without the German being able to attack the 10th and 11th Infantry.

The German continues to pay for his poor initial placement. A pair of 4-6-4's or a single 5-7-4 can hold two river squares; usually, a pair of 5-7-4's would be required to keep it 3-1 proof. However, the Russian has become overconfident; the 4th Cavalry (on S18) can be hit at 3-1.

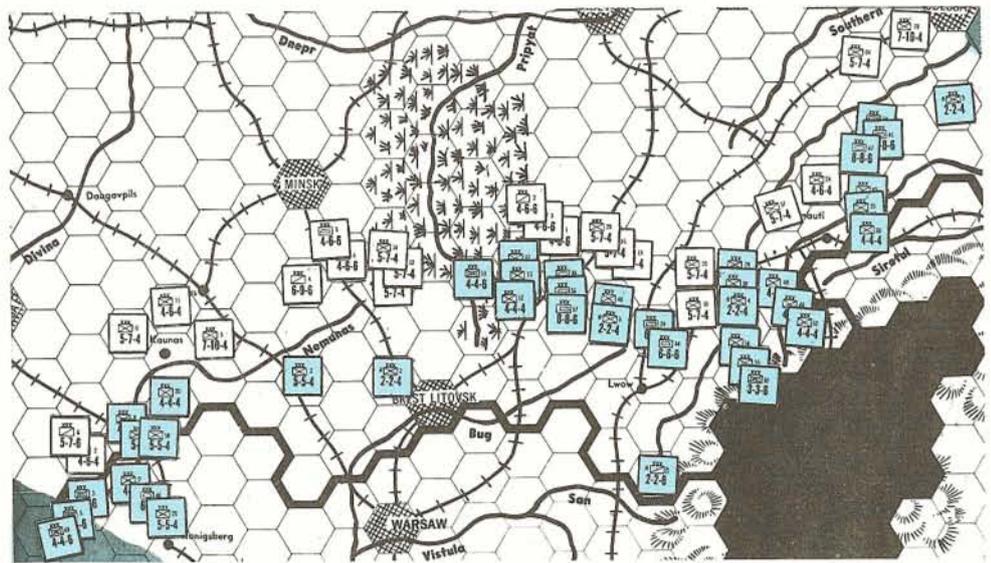
This vulnerability is totally unnecessary; the 2nd Infantry (now on S20) should be adjacent to the 6-9-6 (on R-18, where it would force a soakoff) thereby making the 6-9-6 3-1 proof.

GERMAN AUGUST MOVE: The German misses his chance to break the Nemunas River, by taking a 3-1 on the 4th Cavalry. He has further shifted to making a relatively conservative series of attacks, rather than continuing with the aggressive moves which he had made in earlier turns.

The German should have realized from his earlier turns that attacks against doubled positions, whether at low or high odds, must be so arranged that the attacker can benefit from favorable results (a situation which cannot obtain from the 1-3 attacks); instead, the German appears to have concluded that he should not attack Russians in doubled positions.

If the Russian plays conservatively from now on, the Germans will have substantial difficulties. The forces which have come out of Finland reinforce the Nemunas line; even though S18 cannot be made 3-1 proof, the German has thus far shown no inclination to attack it. Large stacks on each side of S-18 will likely discourage this German from attacking there. The Russian position in the South will require additional delaying units to last beyond this turn, but a number of additional 4-6-4's and 4-6-6's are available in the north.

RUSSIAN MOVE FOR AUGUST: The Russian is attempting to hold positions by scaring the Germans away from them—this is especially evident near Z17 and near DD17. This means that the Russian has units out in the open, where the German can attack them at good odds, without risking doubled losses in a soakoff. The Russian would have been better off if he had left the 6-9-6 at S18; the German would have found this unit much more difficult to attack. It is less than obvious that it is worthwhile to defend the Prut basin a square at a time; by falling back behind the Dnestr the Russian presents to the Germans a 3-1 proof line; this way, the Russian takes casualties. If the 4th Infantry were on H26, the 6R armor would not be able to escape by taking a 1-2—it could be retreated back where it



SEPTEMBER, 1941: The Russians have fallen back showing a willingness to fight for terrain which is more brave than wise. At least one delay unit could have been saved had they fallen behind the Dnestr but the Russian wants to keep the German armor penned in the south as long as possible. The Germans respond with the biggest salvo of attacks they are to launch in the game. The 26th Infantry survives a 1-3 soak-off on the Russian 6th Cavalry allowing a 3-1 on the 2nd Infantry which is forced back to Q19 and breaks the Nemunas. Elsewhere the Russian 1st Armor is eliminated in a 5-1 while the German 12, R5 and 4R Infantry survive their 1-3 soak-offs. R4 and 2R are not so fortunate and are lost in a 1-2 vs. the Red 35th which enables a successful 4-1 on the Russian 10th. The Russians end the turn with a bit of luck as their 24th Infantry survives a 6-1 and retreats to I116. The Finnish front is technically over. The German 6R is holed up in Helsinki where it is surrounded by the Russian 4th and 5th Infantry.

came from. (In the long run, it might have been better for the Russian to make the 3-1 on Helsinki).

GERMAN SEPTEMBER MOVE: The German has hit the Russians in the open. Given the choice, it might have been better to attack the Russian stack on Z18, while soaking off against the Russians across the river. Units left on Y18 give the Russians a choice: counterattack, or lose this end of the Nemunas as well as the other. The German units in the center, with the accumulated replacements, would force the Russians to soakoff against doubled German units, if the Russian wanted to attack the German units on Y18 with no retreat. Note that the Russian cannot reinforce Z18; this means that the Russian will have to use the forces now there to make soakoffs. (Furthermore, the Russian units on Z18 have their backs to the swamp; if attacked, they can only sit or withdraw a square, in which case the Germans can attack them again).

The German finally did get around to attacking across the Nemunas River. One might say, better late than never, but the German certainly did ignore a few opportunities before making this move.

RUSSIAN SEPTEMBER MOVE: The Russian gambles of the previous turn seem to have worked. The German is apparently quite reluctant to attack Russians in doubled positions; the Russian took advantage of this to hold the northern end of the Nemunas for another turn. It might be argued that this method of holding Z18 would have failed if the German had not been able to make a 3-1 on S18, since then his forces in the north would have had nothing better to do than attack Z18; this is becoming a bit subtle. It would have been safer to leave the 6-9-6 on S18 (with one soakoff it would have been 3-1 proof), and put all but one of the units on Z18 behind the Nemunas River; this would probably have lost a unit, but it would have saved the other end of the Nemunas. This German would not, probably, have used an attack from Y18 to break the Nemunas.

RUSSIAN SEPTEMBER MOVE: The Russian has taken advantage of his previous turn's activities to minimize the potential of the German units in the north. In the south, the Russian has elected to play a linear defensive strategy, in which the German must soakoff in order to attack. This will increase Russian losses substantially, perhaps more than is appropriate, even for the low level of Russian casualties to date. The German is not left with many "clever" moves; he has to attack the Russian frontally where he can get at him—in the south.

GERMAN OCTOBER MOVE: The German followed the available course of action: he attacked. This move is an extremely rare example of bad weather hurting the Germans rather than the Russians. Usually, bad weather keeps the Russians from reinforcing the front, while the Germans have adequate lateral mobility. Here, however, the Russians have made provision for a bad weather roll, by having enough delaying units on the scene, while the German is hindered in his ability to reach particular squares, most notably Y18.

RUSSIAN OCTOBER MOVE: The Russian exploits the advantage that he has assembled on previous turns. His position in the north is rigidly classical: he holds the doubled positions, gives away a 2-3-6 where there is no alternative (the German forces in the area would have no other place to attack), and uses stacks of units to force the Germans to soakoff if they want to take extra squares (e.g., U19). In the south, the Russian uses the tactic that he has used, with cost but without a disaster, on previous turns. He attempts to hold valuable positions in the open with substantial strength. The stack of three units in the open on DD20 is vulnerable to a 1-2; if the game were played with exchange at defense factors, this vulnerability would be much lower, as the exchange would kill only two of the Russian units. Even in good weather, the German can make a 3-1 on the 6-9-6 only by soaking off against a 7-10-4 and three or



OCTOBER, 1941: The Russians are content to fall back all along the line and make no attacks although the first replacements make their presence felt. The Germans take automatics vs 2nd and 15th Armor and eliminate the 4th Armor and 29th Infantry in a 4-1 attack out in the open. The Russian 3rd Armor is forced back 2 to DD20 in a 3-1 attack. The German 35th Infantry survives its 1-2 soak-off while the 12th is lost in a 1-6.

four 5-7-4's, on the 5-7-4's necessarily being doubled. This is an expensive attack, especially since the Russians can still hold the natural fortress between the Dnestr and Southern Bug Rivers.

GERMAN NOVEMBER MOVE: Snow did not help the Germans. The Germans have taken the obvious attacks, perhaps in a heavy-handed manner. If the 24th Infantry had been surrounded, but attacked primarily with Infantry, the German armor could have been placed in a slightly more central location, where it might have been more effective. The German did not place any units on AA18. In general, this means that the German may have trouble when he attempts to penetrate the Pripjat marshes. For example, in this turn, the Russian could counterattack against the stack in the swamp (using the Z file only for soakoffs) and let the German decide what to do. The snow actually is going to hurt the Germans, which is remarkable.

The German has 18 factors accumulated. This would make sense if the German was taking attacks on doubled positions, thereby risking exchanges in his attacks. However, the German isn't making attacks where he would risk such losses. In this case, the German would be better off using his accumulated factors to bring back some of his losses. The German would be better off with more units on the board.

RUSSIAN NOVEMBER MOVE: Rather than risking losses in counterattacks, the Russian has elected to prepare reception committees for the German armies. If the German wants to move out of the Pripjat marshes or onto DD20, he risks losses in soakoffs. The Russian has overlooked (or perhaps felt that he was not strong enough for) the time-honored ploy of placing units on Z20. If the German then moves his units from the Pripjat onto Y19, the Russian can surround them. Such a tactic would be

NOVEMBER, 1941: The Russians again fall back while maintaining the isolation of Helsinki. The Germans for their part become super conservative—taking automatics vs 15th Armor and 24th Infantry.



ineffective if the German had pushed 6 units into the northern half of the Pripjat marshes but he failed to do so.

GERMAN DECEMBER TURN: The German has Russian units ahead of him, in the open. He attacks them, which on the average would be a good move. On this turn, though, the German luck was poor; he lost almost every soakoff, and then was rewarded with two D back's and an exchange. Under the circumstances, the German did not have a great deal of choice. Once again, the German has chosen not to bring on any replacements; effectively, he has a "ghost army" off the board. As the front opens up, the German will have more targets for his army. Although his "ghost army" could not have fought on this turn, it could have been moved into more useful positions. Snow is going to last for several turns now, so the German cannot bring in replacements and throw them into battle on the same turn: the replacements need at least a turn to move up to the front.

RUSSIAN DECEMBER MOVE: The Russian moves from strength to strength. Having survived with an intact army until winter, he takes advantage of the superior defensive powers of his units and the advantageous position of the Russian railroads to minimize his losses and make local counterattacks, as is being done in front of Minsk. While the attack does leave Russian pieces on clear terrain, which is often a poor idea, it hurts German morale. In any event, because the weather in January is always SNOW, the German can only counterattack near Minsk with the units in its immediate vicinity. These will permit the Germans to make a high-odds attack on one Russian corps, soaking off the other five. The swamp protects the Russian southern flank; because the German has no units in the marshes, the Russian units on Y20 may only be attacked from one square. Other than this, the Russian simply uses the terrain to best advantage. The 28th Infantry will hold the northern end of the natural fortress until it is starved out, at least given current German reactions to doubled positions.

GERMAN JANUARY MOVE: The Germans took another few squares. He now has 26 factors of accumulated reinforcements. Some of these could have been used to turn the attack on the 3rd Armour into a 5-1. While on the PBM table this lowers the chance of killing the Russian from 80% to 70%, in FTF play the only effect is to turn an exchange into a D-Elim. The German is starting to run out of units in the south; soon, he will have nothing left to attack with except his armor. The unit on BB20 looks suspiciously like an effort to "protect" the German flank, a task already admirably performed by the Pripjat marshes. The 4th Cavalry is 3-1 proof, even without the 2nd Cavalry to act as a soakoff piece.

RUSSIAN JANUARY MOVE: The Russian seems infatuated with the idea of defending in the open, even when there is no point to it. The Russian has moved out from behind the Dnestr. While it is true that the German could surround JJ17, he could only make a 3-1 on it by using his entire army in the south. This would hold Kiev for another turn. The 2nd Cavalry and 4th Cavalry are in an especially unfortunate position; the German can attack them and soakoff against Kiev. A more reasonable approach would have been to move the 6-9-6 into Kiev, with soakoff pieces to the north behind the rivers. This would make Kiev 3-1 proof. As it now stands, the German can make a 3-1 on Kiev, and

have units on the Dnepr River afterwards. The lack of the "ghost army" becomes more apparent; the German cannot both attack Kiev and attack the Russian units in the open.

If the 4th Armour were on KK19, it would hold the Southern Bug. As it now stands, the Germans can cross it at Nikolayev. This would require the use of an armored corps, which indicated another flaw in the German position; the panzer grenadiers are in the north, where their mobility is of relatively little value. They could be in the south, where their speed might be of some consequence.

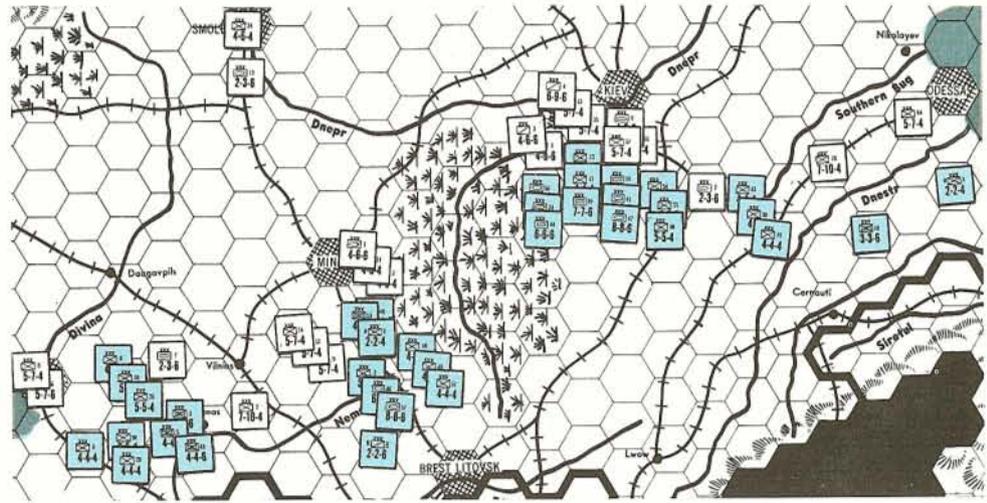
GERMAN FEBRUARY TURN: It is hard to believe that the German player does not understand that he can replace dead units, since he has carefully noted his accumulated replacement factors for each turn. Why, then, does he have 30 factors of accumulated replacements? The Shadow may know, but he is not available for comment. If the German had his replacements on the board, he could have attacked the Russian units in the open in the south without feeling tempted to transfer units from the northern to the southern front, as he is now doing.

Given that the German player does insist on having the units off the board, he is making the best of a difficult position. The German should have occupied Nikolayev with armor—a 6 speed unit could cross the Dnepr, or reach useful squares of it, in a way in which a 4 speed unit cannot. Similarly, the armored corps in the swamp might seek better employment elsewhere.

The Russian must worry about the possibility that there will be good weather next turn. The loss of the southern-most square of the Southern Bug really hurts him very badly. If he held the length of the Bug, he would be able to counterattack to hold Kiev. He would take casualties, but he would be in a doubled position at the end of his move. As things stand, the Russians can make a 3-1 surrounded on DD21 by using all of his units South of Minsk, inclusive, except those required to hold the Southern Bug (I include a 3-1 on the 38th Infantry). This unbalances the Russian position, but it holds the Dnepr (a big plus). Furthermore, the German position is itself quite unbalanced.

RUSSIAN FEBRUARY TURN: The Russian response is somewhat less aggressive than the one we had envisioned. Given the weakened state of the German army, it is probably all right for the Russian to invite the German onto DD23. Once there, the German can be surrounded. The Russian ought to have remained in Riga. By pulling back, he allows the German to replace two 4-4-4's with one 2-2-4 without loss of defensive power. Furthermore, Riga is a sally port for the Russian army. They can come out of it and attack the Germans in the open, in a place remote from the German advance. If the Germans had advanced to or beyond Smolensk, this would be more effective; the Germans would have to bring units back from the front, and take another turn to get them back to the front. Currently, Riga is too close to the front for this sort of attack to be very effective.

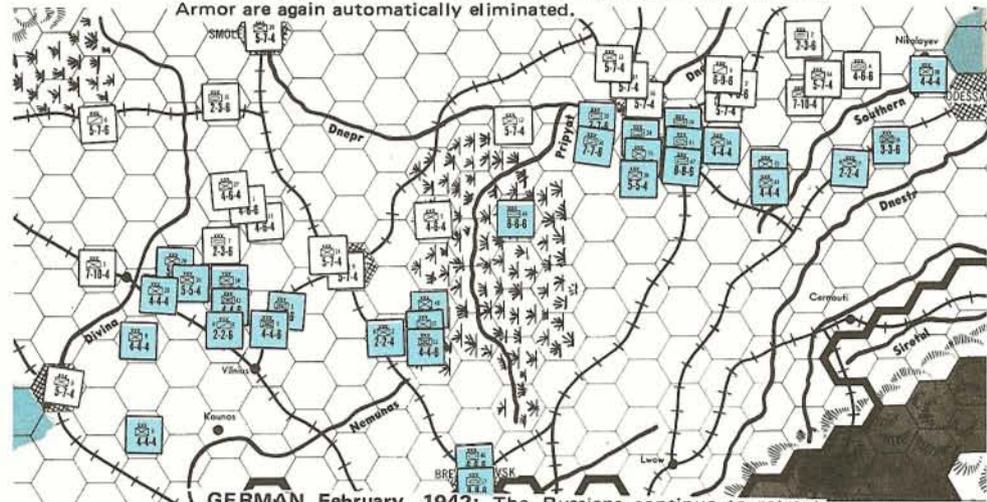
GERMAN MARCH TURN: When the German starts losing attacks on 2-3-6's (a D Back 2 against a 2-3-6 is a loss), something is wrong. The German ghost army continues to grow, but it doesn't work too well until it comes onto the board. The German move onto DD22 may be characterized as "sticking your head into the noose, and pulling on the other end of the rope."



DECEMBER, 1941: The snow prevents the Russian replacements from reaching the front but their absence is not really felt. Strangely, the weather impairs the Germans more, but doesn't prevent them from finally meeting the Russians in the open head on. The Russian 3rd Armor is forced back in a 3-1 attack while the German 13 and 17th Infantry are lost in the 1-6 soak-offs. The Russian 6th Armor is forced back in a 5-1 assault. The German 2nd Infantry is lost in exchange for the Russian 9th in a 4-1 attack but the 53rd Grenadiers and R2 which soaked-off in support at 1-6 survive and are retreated to AA17. The Russian delaying units are lost to automatics. After finally mustering the courage to attack massed Russian forces in the open the German has met with bad luck.



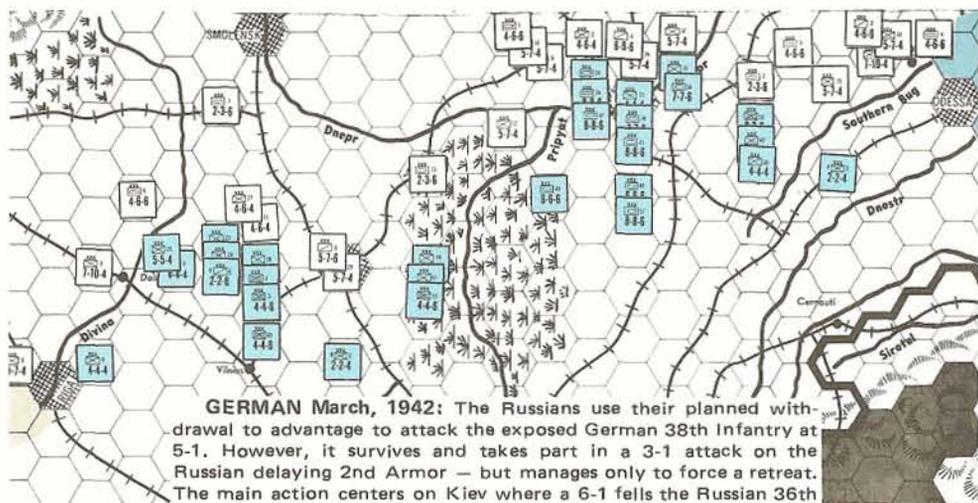
GERMAN January, 1942: The Russians grow bolder in the snow and resolve to make the Germans pay a bit more for the Nemunas — knocking off the 4R at 5-1 odds. The German responds with a 4-1 against the Russian 3rd Armor which costs him his 38th Infantry in exchange. Both soak-off attacks succeed as the 8th and 52nd are retreated to S21 and Y17 respectively. The Russian 6th and 15th Armor are again automatically eliminated.



GERMAN February, 1942: The Russians continue to retreat, giving as little ground as possible. The Russian 13th Infantry is lost in a 3-1 on Kiev but the German 3R and 54th Infantry are lost in the supporting 1-6 soak-offs. The Russian 7th Armor is automatically eliminated in the north as the Germans switch their armor to the south.

D-DAY

by William B. Searight



GERMAN March, 1942: The Russians use their planned withdrawal to advantage to attack the exposed German 38th Infantry at 5-1. However, it survives and takes part in a 3-1 attack on the Russian delaying 2nd Armor — but manages only to force a retreat. The main action centers on Kiev where a 6-1 fells the Russian 36th Infantry. The 24th Armor is lost in the 1-6 soak-off while the 35th Infantry survives a 1-4. To the north, the German is too weak to do more than eliminate the Russian 11th in a 3-1 exchange while soaking-off against the 27th.

At this point the game ends in a massive Russian counterattack at Kiev. Had the German brought his reinforcements up to the front it is doubtful whether the Russian would have dared to launch this counter-offensive in which the German 10th, 14th, and 56th Armor were lost. It was the Russian's opinion that the German was saving his replacements for a massive gamble on one front, which if met with failure, could result in a sudden reemergence of German armor on the other.

RUSSIAN MARCH TURN: The Russian obligingly helped the German pull on the rope. It is now too late for the Germans to bring on their replacements; the Russians are too strong. If the German army had kept bringing on replacements as they became available, they might have had an effect, but it is now too late.

An analysis of the luck factor (i.e., average losses in given situations as opposed to actual losses) shows that both players fared rather well in that they lost less factors than could be normally predicted. However, the Russian's luck was considerably better and the .33 difference is certainly significant. Given the mistakes made by both players it is hard to determine just how different the outcome might have been with a more evenly distributed "luck factor."

CONCLUSION: The German started with a faulty initial placement, switched from being too rash to being somewhat conservative, and then never replaced his losses. While the Russians were more aggressive (especially in terms of leaving stacks of units out in the open) than is safe against a good player, they got away with their mistakes. The Germans paid the full price for theirs.

The Russians kept a 7-10-4 in the South for the entire game, but paid almost no penalty for doing so. This decision should have cost them river line after river line, but the Germans never deployed to take advantage of the situation. While the quality of play in this game did not lead to the astonishing outcome seen in the last Stalingrad replay, there is certainly much room for improvement.

THE LUCK FACTOR

	Anticipated German Losses	Actual Losses	Anticipated Russian Losses	Actual Losses
German Jun '41	13.73	23	11.16	12
Russian Jun '41	6.67	10	2.67	0
German Jul '41	17.47	5	10.32	12
Russian Jul '41	18.67	17	7.16	0
German Sep '41	12.01	7	21.16	13
German Oct '41	9.00	6	13.67	13
German Dec '41	9.33	13	12.67	0
Russian Dec '41	3.33	5	0.00	0
German Jan '42	4.67	4	4.67	6
German Feb '42	11.16	9	4.67	7
Russian Feb '42	2.67	0	0.00	0
German Mar '42	10.33	18	13.66	6
Russian Mar '42	14.67	18	13.66	6
TOTALS*	133.71	127	113.65	82

$$\frac{133.71}{127.00} = 105\%$$

$$\frac{113.65}{82.00} = 138\%$$

*Attacks involving automatic victory are not included.

Far off, the drone of aircraft gradually grows louder and louder. Vague outlines of planes become visible, then small shapes tumble forth, falling towards the earth. Snow white colors blossom throughout the sky and drift downwards. A second string of aircraft roars overhead and yet a third. The first group of paratroopers hit the ground and quickly release their chute harnesses; group around the cargo bundles for ammunition and heavier weapons and then move out towards pre-assigned targets. Through their skilled use, gun positions, communications and bridges are neutralized. Road blocks stop or slow down German reinforcements racing towards the main front. Thus, the role of the Airborne.

Tactical

All too often, in *D-Day*, Allied parachute divisions are used unwisely or wasted through their availability during the invasion assault. Because the Allied player has them, he feels that he must drop every one allowed; some in attack with an additional drop somewhere close, but serving no tactical purpose. This wastes units through the loss of isolation, attacking cities at I-I odds and the automatic loss of one jump capability. Parachute units are the most valuable divisions the Allies possess and, due to their small numbers, must be conserved. If, during the initial invasion, paratroopers must be used, drop them only in direct support of ground units. If German A.P.D. (anti-parachute defense) units are covering the coastal defenders, attack the weakest one closest to the beaches to ensure linkup after combat. This insures logistic support and forms a shield against a strong counterattack aimed at the beachhead.

If due to German defenses, a walk ashore can be accomplished without combat, do not airdrop your airborne units. Instead, land them ashore as regular infantry and utilize air attacks to neutralize local German reserves from counterattacking. At the earliest turn allowed, bring in the remaining parachute divisions along with the ground unit reinforcements. Now a maximum of four airborne divisions exists, ready to be dropped at any instant. At this early stage of combat, mobile ground units supported by strategic air attacks are sufficient to grind down local opposition. While awaiting an appropriate mission, paratroop units make excellent beach flank guards against weak, bypassed statics; or combined with H.Q.'s to contain German held fortresses, thus freeing combat ground units for use at the front. Parachute units, although somewhat slow, can move away from the main conflict in securing additional beach logistic support. No matter how far away they move, when the time arrives, they are always immediately available to be air-lifted into combat.

Normally the Allies utilize paratroopers to tactically support a cross-river attack, thus breaking the defenders doubled position, but unless it permanently cracks the German ability to fall back to their next defensive position, it has only a limited value.

Strategic

The strategic value of paratroopers up to now has never been discussed very much, due to their isolation vulnerability and resulting loss. Theoretically, airborne units can drop onto and around an inland port, (assuming that there is no resistance), to

AIRBORNE OPERATIONS



capture it, but they must be able to hold onto it for an entire week before ground units can come ashore. The numerous inland port squares are extremely vulnerable to counterattack, which results in its loss as well as the now cut off parachute units.

Less, grandiose, but still of significant strategic value are single air drops. When the Germans are moving forward to contain the Allied bridgehead, some coastal city or fortress may be carelessly left unprotected into which a parachute unit can be dropped, thus securing for itself logistic support and a strong defensive position to await the eventual linkup with advancing ground troops. An example would be an airborne capture of Le Havre. Several weeks may pass before the Allies reach the Seine in this area, but as they do, ground units can take over the position and conduct a combination river attack against any Germany defenders located east of Le Havre. The main objective though is to secure this fortress now by surprise rather than to have to assault it with heavy casualties later on, as the Allies may desire to use the inland port of Rouen.

Another type of limited strategic use of airborne forces is after an Allied breakout from Normandy and in the ensuing battle for Argentan, a "Drop and Walk" operation can be used to occupy Orleans; where a parachute unit drops its limit and walks into Orleans. On the following turn a second parachute division is dropped its limit from Orleans and walks into Troyes. This rapid advance cuts short the Germans Seine River defense and allows an Allied bridgehead for a springboard advance across the Seine. To insure non interference from German units in the vicinity, air attacks can destroy or prevent movement of any possible German reserves. Because of this rapid one—two airborne maneuver, German opposition will be slight in the Troyes area since the majority of his units will still be retreating across the Seine or in defense positions from Paris to Le Havre.

Grand Strategy

The overall code name for this is "Triage," (positioning in three areas), which encompasses the strategic use of two invasions and one massive air drop. Map symbols are used for visual reference and ease of explanations. The advantage of this strategy is its flexibility and simplified modifications as the flux of combat shifts. When German defenses in the North Sea area are situated along the Amsterdam—Rotterdam—Antwerp islands line in order to double their defense, an Allied walk ashore can be accomplished in area "A" without combat. Airborne forces consisting of three divisions drop and walk; two into Aachen and the third to O-15. Any German reserve at N-9 is to be air attacked, which prevents German occupation of P-13. A second air attack can be used if necessary to prevent interference from an A.P.D. unit.

Local German units are heavily engaged in containing the Allied enclave in area A and cannot stretch their resources this early without danger of an Allied breakout. On the second week, the units in Aachen move to fortified squares N-13 and P-14, while the unit previously at O-15 takes their place in Aachen. The second weeks airborne reinforcement drops directly onto Trier. Any threatening German move towards this area can be neutralized by strategic air attacks, while ground forces keep the German attention focused on the North Sea with small local attacks of attrition and to draw German reserves stationed in N.E. Germany. By the Allies

third week, the unit at P-14 exchanges positions with the unit in Trier and the same takes place with the two other units. By this continuous shifting of four parachute divisions in and out of the fortresses, no sustained isolation can occur. This strategic control between Aachen and Trier opens a corridor through which the Allies can eventually drive across the Rhine. Thus map A series objectives have been accomplished.

In the ensuing weeks, the Germans must thicken their defense belt around the North Sea enclave, not only to prevent a breakout, but to act as a reserve against a possible second invasion here and as reserves against casualties from air attacks. This drain of manpower cannot help but weaken the defenses on the remaining invasion areas, especially if he withdraws units in order to eliminate the parachute menace. Even if he ignores this threat, the areas of Normandy, Brittany, and the Bay of Biscay are weakened through the need of reinforcing Pas De Calais and Le Havre against a second invasion.

Throughout the 7th and 8th week, carpet bombing in Brittany shatters the local defense system. Reserves from other areas cannot be spared to fill in these gaps without seriously weakening their own coasts.

With a successful 9th turn invasion in Normandy or Brittany, B series, the Allies rapidly advance up through central France (I) with a holding defense (2) maintained between Argentan and Chartres with H.Q. units supported by four infantry divisions. The bulk is extended east of Chartres for a flank attack (3) over the Seine River and while a secondary force rolls up the Germans flank to Paris (4) the main body sweeps towards the sea (5) which eventually links up with the North Sea forces. These are much

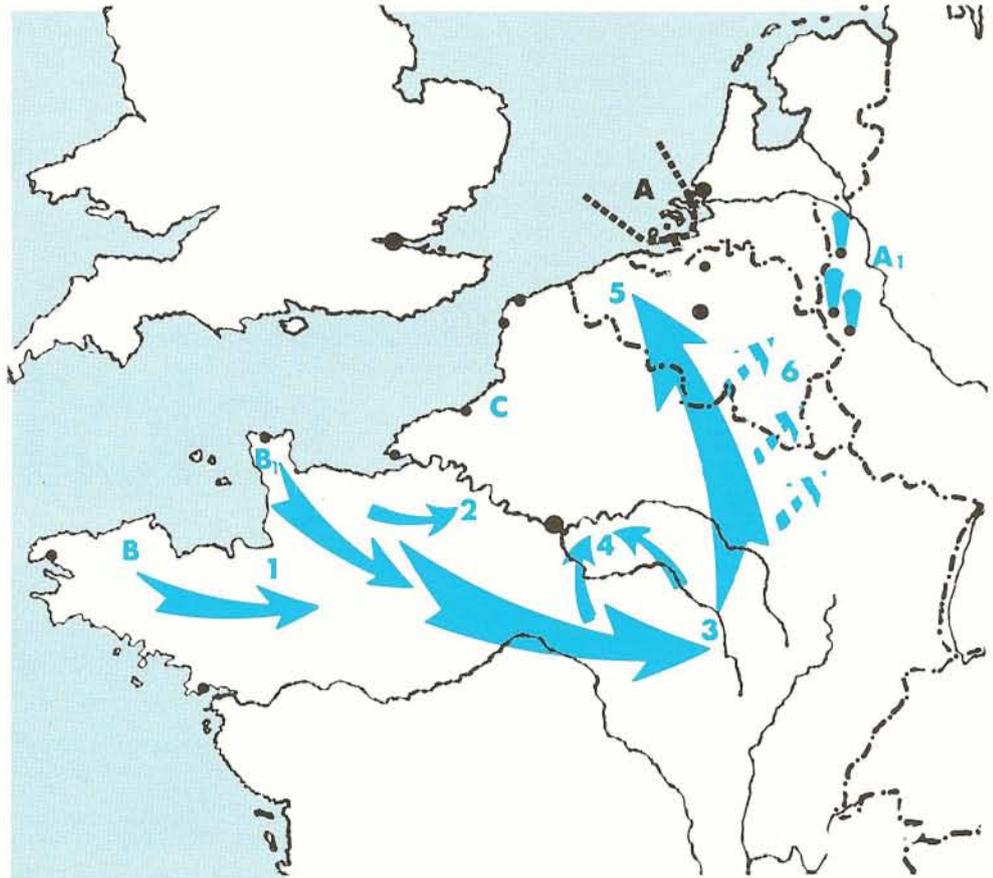
the same tactics as were used in Italy and Anzio. The few faster German panzer divisions will escape from within this "Stalingrad of the West" pocket, but a majority of the slower statics and infantry are doomed unless they retreat into the four area fortresses. Once there, they are easily containable until the end of the war. Due to a limited logistics range of 17 squares, a few infantry units can advance east (6) only when the Seine River defenses are shortened and through capture of a coastal square (5).

Upon completion, the Wehrmacht will be weakened beyond repair. Faced with a potential North Sea breakout, confronting the Allies in the West and a parachute army invested in the Siegfried Line, the Germans are faced with a closing "Triage" and total defeat.

Note: Depending on the initial German defense set-up, the Allies first invasion can be reversed from A to one of the B series areas, with the second invasion in the North Sea. The parachute division strategy may have to be modified, as by this time German panzer brigades can be covering this area.

A potential second invasion area is the Pas De Calais area (C). A success here though is unlikely in the face of strong German forces unless he is caught by surprise by Allied pre-invasion air attacks.

In summary, your parachute units are worth many times their number in ground divisions. Tactical use of airborne forces should be kept to a minimum; never drop more units than necessary to accomplish the objective and alternate the drops so as to not end up with one division having never made a drop, while others have expended both drops.



EXPERIMENTAL PANZERBLITZ

by Michael Markowitz

FIGHTING FIRE WITH FIRE IN PanzerBlitz

"A single spark can start a prairie fire."

— Mao Tse-tung

"Only YOU can prevent forest fires."

— Smokey the Bear

The above quotes only begin to tell the story behind the zany gaming activities of Michael Markowitz. He is just one of a legion of PANZERBLITZ enthusiasts with a seemingly never ending series of variant rules for our most popular game. Our files abound with many other suggestions equally as good as the one which follows, so GENERAL readers can be assured of a steady stream of PANZERBLITZ material in future issues.

When wargamers talk about "fire" they mean gunfire. But we should remember that the other kind of fire, namely combustion, is one of man's oldest weapons. Well before the invention of napalm, incendiary devices were used in warfare. The "greek fire" of the Byzantine fleet is one early example. Anyone raised on a diet of Hollywood war movies should be aware of the fact that battlefields are usually littered with burning objects.

A frequent criticism of PanzerBlitz is that units in town or woods hexes enjoy an unfair advantage. They can blaze away at anything in sight, but they are virtually immune from anything but an adjacent hostile force. Well, towns and forests have one property in common, they are inflammable. On a real battlefield an astute artillery officer could make use of that property to good advantage. How can we simulate the effects of deliberate incendiary fire on the game board (without dropping lighted cigarette butts on the map, as sometimes happens)?

Most of the forests in central and southern Russia are a mixture of birch and evergreen! In the Summer and Autumn, particularly in dry weather, the risk of fire must be considerable. In rural areas, especially the Ukraine, thatched roofs and other highly inflammable construction techniques are quite common.

During the Second World War, the most common incendiary shell was white phosphorus, which was also used to lay smoke. It is hard to judge how many rounds of such ammunition the various units of artillery normally carried as part of their basic Unit of Fire. It seems reasonable to restrict incendiary attacks to towed artillery units of both sides over 75 mm in caliber, plus German heavy (120 mm) mortar units. Allow each firing unit only one incendiary attack in the course of a game. Normal range and Line of Sight restrictions would apply, of course.

Now an incendiary attack has some unique characteristics. It is not primarily directed against the enemy unit, it is directed against a feature of the terrain, namely the town or forest. If the target area can be set on fire, the fire will do all the work. Of course a fire, once it is burning, affects both friend and foe equally. So it is not a weapon to be used indiscriminately; and in practice it was seldom employed. But in theory,

incendiary fire could be directed against an unoccupied hex, or even a friendly occupied hex (as in the war movie cliché of the outpost, about to be overwhelmed, that calls in artillery fire on its own position).

Since incendiary attacks will not be successful 100% of the time, we will need a Conflagration Results Table (CRT). For the sake of simplicity, we can require a minimum Attack Factor of 20, and consider town and woods hexes equally liable to ignition:

Die Roll	Artillery Attack Strength			
	20	40	60	80+
1	x	x	x	x
2	x	x	x	x
3	o	x	x	x
4	o	o	x	x
5	o	o	o	x
6	o	o	o	o

An (x) indicates a successful incendiary attack, an (o) indicates that the attack is unsuccessful (no result). If the incendiary attack is successful, the target hex should be marked in some way (a penny will serve quite well). A dab of cotton streaked with red paint provides a bit more realism for those of you who relish that sort of thing.

What are the effects of a burning town or forest? For the sake of simplicity, we can assume that the effects on a unit will be very much the same as a minefield; the fire area compels the units on it, or passing through it, to stop and undergo an "attack" at fixed odds of 2-1. Such "attacks" should be resolved during the first phase of each player turn (minefield resolution).

Combustion, as we all know, is a dynamic phenomenon. A fire can spread, and forest fires have been observed to travel at very high speeds, given the right conditions of wind and fuel. A fire can also burn itself out. Each turn in PanzerBlitz represents something like six minutes. So in the course of a typical game, the fires started by player action should be subject to expansion or contraction in some realistic way. At the end of the fire "attack" phase, roll the die once for each town or woods hex adjacent to the burning hex. A roll of 1 or 2 means that the fire has spread to that neighboring hex. Any other roll is treated as "no result." At the end of each complete Turn, roll the die once for each "fire zone" (consider any area of adjacent, contiguous burning hexes to be one fire zone). A roll of 1 will "extinguish" the entire burning area.

Setting fires "On the Ground"

Engineer units of both sides were often equipped with flame throwers. These were normally used against the enemy, but they would also be very effective in igniting inanimate objects. For that matter, all units of all combatants during the Second World War were normally equipped with matches, but on the scale of PanzerBlitz (250 meters to a hex) we can ignore such little blazes). We can permit an engineer unit to set fire to its own town or woods hex. To simulate the greater proficiency of German engineer troops (which was often shown in the quality of their demolitions, booby traps, etc.) players might even wish to make the following distinction: A German engineer unit may ignite its own hex, and then vacate it during the movement phase of

Continued on Page 9

PANZER LEADER

COMPONENTS: Four 8" x 22" geomorphic mapboards; 380 unit counters representing British, American, and German units; Five Scenario cards; CRT, WEC, TEC, TET, AA-CRT; 32 pp. rulebook.

COMPLEXITY RATING: TOURNAMENT IV
GAME LENGTH: 1½ – 2½ hours; Scenarios range from 8 to 15 turns.

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Everything You've Wanted to Know About the Value of Intelligence But Were Too ORSA to Ask

by LT. Alan P. Hald

If you think that all AH games are simply 'games' with little or no basis or function in reality, we direct your attention to the following article, extracted in its entirety, from the U.S. Army's Combat Development Command's ARROWHEAD magazine. While bordering on the esoteric, our readers should find the application of AH gaming techniques interesting. In fact, the subject of this article may suggest some interesting and playable variants.

Strange title? Possibly, but having project officers spending duty time playing a tabletop wargame may seem even more unusual. The game was *Blitzkrieg*, a commercial combat simulation by Avalon Hill, Inc., and the players were from the USACDC Intelligence Agency. The purpose was to develop a methodology that would put a dollar figure on the value of combat intelligence and help answer the question, "How much should the Army pay to improve its combat intelligence capabilities?"

The need to develop a methodology to quantify the value of intelligence becomes very apparent when reviewing the current and proposed resource allocation for development systems designed to improve the Army's combat intelligence collection and processing capability. During June 1971, the Combat Developments Command Experimentation Command working with Dr. Weiss of Litton Scientific Support Laboratory, proposed a simple experiment to determine the value of a perfect sensor system. Essentially, one of two combat equivalent forces, i.e., forces that would fight to a draw, would be given the simulated output of a sensor system. The number of combat units of this modified force would then be reduced until the two forces were again combat equivalent. The magnitude and direction of this fire power adjustment would measure the value of the sensor system. A combat simulation would be used to wargame both forces and determine when they were combat equivalent.

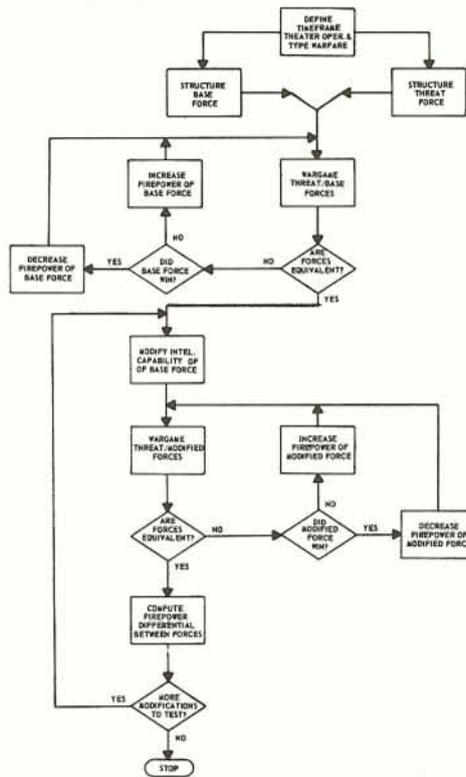
The Intelligence Agency became interested in the potential of modifying this experiment to evaluate other types of intelligence collection and processing capabilities; and initiated research to achieve a thorough understanding of the methodology of the experiment. The selection of a combat simulation to be used in this research was guided by cost and time restrictions. Fortunately, any free play game could be modified and used to conduct the experiment.

The tabletop wargame, *Blitzkrieg*, was selected as the best readily available conventional warfare simulation. Although the accuracy of the game may be challenged, it provides sufficient realism to achieve the objective of this research. It is interesting to note that the use of tabletop wargaming to conduct research is not a new concept. Currently, USACDC Combat Systems Group is using an expanded tabletop wargame called JIFFY to gain insight into proposed force configurations, e.g., TRICAP.

Briefly, *Blitzkrieg* is a two player game played on a European type terrain board with RED and BLUE counters representing divisions of each force. The players are able to see the entire board

and are aware of the location, size, type, and strength of the opponent's forces. Either player can win by destroying his opponent or by capturing his cities within a prescribed number of turns. To apply the proposed experiment's methodology, the game was modified to simulate a large differential in intelligence capability between the forces.

This was easily achieved by denying RED information about the location, size, type, and strength of all BLUE units that were not decisively engaged. Since the elements of chance precluded the likelihood that both forces would suffer identical rates of attrition, the definition of forces fighting to a draw was also modified to



mean a state of equilibrium, where either side would have a 50-50 chance of winning any one of a series of games.

Several games were played with the firepower resources of BLUE, the force with intelligence, being adjusted after each successive game until RED and BLUE returned to a state of equilibrium. For each game, the players applied conventional tactics, attempting to anchor defenses on key terrain, massing fire power and enveloping the enemy where possible. However, RED's lack of intelligence caused several interesting variations in tactics.

To locate and make contact with BLUE, RED had to extensively use reconnaissance in force which tended to increase his combat losses. BLUE usually avoided this type of unfavorable contact by effectively utilizing his intelligence. BLUE also capitalized on RED's lack of intelligence by continually employing a tactic equivalent to a large scale ambush along RED's likely avenues of approach. RED relied heavily on

terrain analysis to avoid this type of unfavorable engagement.

As the game progressed, RED realized that BLUE's primary advantage was the ability to apply his intelligence superiority to effectively mass forces and limit the risk of a RED spoiling attack. To counter this advantage, RED was very willing to sacrifice forces to find, engage, and destroy BLUE early in the game. However, the lack of intelligence also affected RED's leadership ability, which hindered the implementation of this strategy. Its impact was readily observable when RED became completely uncertain of the relative size and disposition of BLUE's forces — he lost his confidence, became indecisive, and assumed a more defensive posture. RED had lost the will to fight and the game turned decisively in favor of BLUE.

The combat advantage BLUE gained by having superior intelligence was neutralized by a 25% reduction in the number of BLUE combat units starting the game. At this level of reduced BLUE firepower, both forces were combat equivalent even though the RED forces were one-third larger. The difference in force size indicates that BLUE's improved intelligence capability permitted a more effective application of firepower resources. However, the BLUE force could trade off this intelligence advantage for a one-third increase in firepower and remain the combat equivalent of the RED force. Therefore, with respect to both forces, the value of the improved intelligence capability is equivalent to the values of the firepower differential between the forces. This can be expressed in dollars as the procurement cost of the firepower differential.

If the RED player desired to acquire the same capability, he should be willing to spend up to the value of that capability — the procurement cost of the firepower differential. If he had to choose between several different capabilities he might look at the ration of the expected value of each capability to estimated cost of its procurement. This would numerically express a cost-effectiveness measure for each intelligence capability. By definition, an investment in a balanced increase of firepower resources has a cost-effectiveness measure of one. If a capability yielded a cost-effectiveness measure of two, then an investment in that capability would increase the force's combat power of the force twice as much as the same investment in additional firepower resources.

Analysis of the *Blitzkrieg* experiment has assisted in the development of the Value of Intelligence Methodology (VIM). The methodology discussed initially in this article has been modified to reflect reconsideration of the effect of the threat, type of warfare, and theater of operation on the value of intelligence and is presented in the VIM flow chart. By applying VIM it may be possible to determine the value of modifying the capabilities of an intelligence subsystem directly in terms of its impact on the combat effectiveness of firepower resources. This information could be used to evaluate, with respect to current intelligence capabilities, the value of making a significant modification in the intelligence subsystem. Such an experiment could be run concurrently with testing designed to gain operational data (e.g., MASSTER evaluations such as IBCS Phase IIA tests) or could be conducted separately with the operational data becoming the

A.H. Philosophy

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A.R.E.A.

The convention, like many other offerings made through the *GENERAL*, is offered as a service to the members of the gaming fraternity. Avalon Hill stands to gain little if anything from this effort but if it helps to promote the hobby in the style it deserves it will be worthwhile. We are always on the lookout for more services to render to the wargaming community and yet another has occurred to us recently. Our proposal is to establish an official rating system for wargamers policed by A.H. employees and officially publicized in the *GENERAL*. The feedback we've received from local gamers and our many contacts across the nation have convinced us that this is a viable project which would be appreciated by thousands and just might help put wargaming on the map in much the same way as the United States Chess Federation's (USCF) ratings have done for that particular pursuit.

The program has many good points as well as some difficulties but before going into those let's explain the system. The AREA rating system we will use (Avalon Reliability, Experience, & Ability Rating) is quite similiar to the USCF postal system. All players interested in being rated must fill out the coupon included in this issue's Readers Response Page along with the required fee of \$2.00 and an estimate as outlined on the card of their own ability. They should also check the box pertaining to permission to print their name and address in the ranking lists in the *GENERAL* if they desire to be included in such a listing.

Players should choose their level of play honestly as under-rated or over-rated participants will find themselves moving up or down quickly until they obtain their optimum rating for their

strength. Novices should start with E, and first year gamers with a D rating. It will take time for the rating pool to standardize itself and become truly meaningful but eventually competition will determine your rating. Each classification will be equal to a numerical strength; A=1800, B=1500, C=1200, D=900, and E=600. The only exception is in the A rating which will only be given 1600 as a starting point. All classification above 1600 must be earned. The numerical ratings are adjusted through competition as in Figure 1.

EXAMPLE: Assume a 900 rated player beats a 1200 rated player. The winner gains 95 points while the loser drops a like number to 1105. Had the higher player won his rating would now be 1245; the loser's 855.

This chart will be used for all players until they have been rated on 15 games, at which time another chart closer to USCF specifics will be substituted which will call for smaller gains and losses to preserve class integrity.

Ratings will be judged fairly and attempts at fraud or false representation will be sent warnings, and if continued will bring expulsion from the rating pool. Forfeited games will not be counted and those who forfeit without just cause will be expelled from the rating pool. Thus, over a period of years, a body of reliable opponents will be formed and an AREA rating will be the sign of both a competent and mature opponent, as those who place emphasis on winning at the expense of fair play are weeded out.

The basic purpose of the ratings is to assure matching of players on an equitable basis. The honorary aspects are incidental. Yet, the ratings, when considered over the long term, a year at least, are a fair measure of a player's progress. The rating system should enhance competition and gaming in general. The establishment of ratings also open the possibilities of pbm tournaments run by A.H. for prizes among players of the same classification. Although not especially eager to be saddled with this extra bookwork we will take it on if you present us with a mandate for it. We recognize the fact that pbm tournaments are immense fun to those wargamers who live in areas where competition is poor or nil, or those who

just thrive on top flight competition. Pbm competitors will no longer have to guess about who's who and suffer through matches with non-answering, cheating, or immature players. Quality play would increase as equally matched players learn more skill and enjoy themselves more in the process than mismatched players do. Bowlers have their averages, and golf players their handicaps; so why not AREA ratings for wargamers?

Those are the benefits; now for the drawbacks. It is generally accepted that excellence in one area of play does not necessarily imply excellence in another, although there usually is a positive correlation. The USCF maintains two player rating pools — one for ftf and the other dealing with pbm games. What then for wargaming which has not only those two divisions, but literally dozens of games as well? We will not discriminate between categories although we will add QUALIFIERS which will suffice for our purposes. And although ability in one game does not imply anything about ability in another, we plan to rate only a player's general ability. Generally speaking, a player's abilities in different games vary in direct proportion to his experience with the game. A player who accepts a rated match in a game in which he has no experience is just asking for a lower rating. The problem should police itself as players will tend to protect their ratings and only accept a rated match in games where they feel they can acquit themselves well. A similiar problem is one of play balance in the individual games; both players may want the "favored" side. Again, this is a self-correcting problem. Most of the games come complete with a number of optional rules which can be added for play balance purposes. The best course is for one individual to choose the game and rules to be utilized and then allow his opponent to choose the side he wants to play. Failing this, the obvious answer is to play two games and switch sides. The problem is certainly not one which can't be resolved by the players themselves. The player is not honorbound to submit every game he plays hereafter for rating. Indeed, we imagine most games played will continue to be unrated. For one thing you can only play a rated match with someone who also belongs to the AREA rating pool. Given this, you must agree beforehand whether you wish to submit the game to rating or not. Once agreed, the loser is honorbound to validate his opponent's victory claim and refusal to do so could bring expulsion from the pool. Games can be rated both live and by mail.

The last and most valid criticism of the system is that a player in Podunque, PA can amass a big rating by playing only local competition — none of whom may amount to a hill of beans. This is true but becomes less so with each passing game and number of opponents. Also, as a player continues to beat the same competition their ratings decrease while his increases, giving him fewer and fewer points for a win until it reaches the point where he can only lose — not gain by playing these individuals. However, even this problem is solved by our addition of QUALIFIERS to the numerical rating — a provision which even the USCF lacks. See Figure 2 for further information.

EXAMPLE: An AREA rating with a QUALIFIER prefix of CCB has been rated in 11-15 games against 4-5 opponents of whom 2 have

NUMERICAL RATING CHART

FIGURE 1

Subtract ratings of the two players: Difference In rating points:	If higher rated player wins — higher player gains & lower player loses this many points	If lower rated player wins — higher player loses & lower player gains this many points	In case of a draw — higher player loses & lower gains this many points
0-50	70	70	0
51-100	65	75	5
101-150	60	80	10
151-200	55	85	15
201-250	50	90	20
251-300	45	95	25
301-350	40	100	30
351-400	35	105	35
401-450	30	110	40
451-500	25	115	45
501-550	20	120	50
551-600	15	125	55
601-650	10	130	60
651-700	5	135	65
701+	0	140	70

Dear Sir:

From what I can glean as a new subscriber to *THE GENERAL*, there appears to be a minor debate shaping up in a major way over the value of command control rules. From the letters printed already, it would appear that the majority of those people who wrote in are of the opinion that command control rules do little else than insure that the only result possible will be the historical result. A blanket statement like this can only be the result of too little delving into games that do possess command control rules. Remarks like "I have yet to see a command control rule that doesn't introduce more unreality than the situation it pretends to remedy" indicate one person who either through ill luck or too little delving fails to find those games where a person accepts his "flak from above" or whatever and works with it, accepts it, and despite all adversity manages to pull off a stunning victory anyway. Despite my relative inexperience in war gaming (just over a year), I've seen games where command control rules can either not affect you or destroy totally any chance you have for winning. Whatever the result, the game did not cease to be interesting simply because one had a bit of bad luck. This "luck" I can certainly accept. I don't have to be spoon fed a situation stripped of the things that made this or that commander act in a certain manner.

For those who don't wish their fun to be interrupted by reality, there are numerous games around that aren't made with command control rules. There are times when a person wishes such a game where he can be and act unfettered by the reality of history. Just think: It's considerably easier to do better than the commander actually did historically if you are freed from his command control headaches, yet how much greater is your triumph if you do better than the historical commander while dealing with his headaches?

I do admit, however, that your competitor has a tendency to sometimes go overboard on command control rules. This is the exception, however, rather than the totality that your more vocal subscribers seem to think. However, if one still doesn't wish to play a game fettered by idioic factors, I sincerely urge him to stick to games without them. As I see it, some people dote on piles of complexity while others eschew anything difficult. It all boils down to a matter of personal taste.

1776, I agree, should not have a command control rule. The situation, as Mr. Phillips points out, is not really compatible with a command control rule.

One thing I've noticed to my displeasure so far is that those who write in tend to dismiss SPI and other publishers as merely your competitors. This smacks too much of totally supporting one company or the other. This is wrong, as there are far too many good games published by all companies.

Also, in the issue of *THE GENERAL* just received, there is some editorial remarks concerning the various sniping that goes on amongst the various companies. As partial evidence an example was given of an advance review of 1776. One instance is not considered adequate evidence for Avalon Hill's mistreatment; especially not this instance where even the writer of that particular item noted afterwards that "these are but a few opinions" thereby qualifying his statements.

Whatever the reaction to this letter, I must close by saying that as the owner of numerous Avalon Hill games as well as those of other publishers, I will continue to extract non-ending enjoyment from war games. As for the first impressions that come to my mind after seeing *THIRD REICH*, rest assured that it is definitely going to be enjoying a rather prominent place on my gaming cupboard—side by side with *WORLD WAR II*... peacefully coexisting.

May all the future struggles of the world occur on hex-covered maps.

Ed Newby
Bend, OR

Ed. Note: Bravo! But lest we be wrongly accused of citing poor examples—remember that those listed were just a few of many slight—recitation of which would serve only to promulgate false rumors.

★★★★★

Dear Sir:

I am getting a little tired of all the disparaging remarks that S&T is making about A.H. A.H. games give the buyer more for his money than those of any other company. The main problem

Letters to the Editor ...

seems to be that many of your games are average and badly in need of revision. I am very glad that you are now in the process of revising them and I have no doubts that the new games coming out this fall are among the best ever developed.

Roy Easton
Los Angeles, CA

Ed. Note: Thanks for your kind words which echoed the remarks of many other Avalon Hill enthusiasts who have taken exception to the vociferous bombast printed recently by others. However, we feel no need to get down on such a level and take part in petty verbal ink wars of the type initiated by the "competition." However, we do feel we should point out that contrary to what they've listed in their most recent rating charts, Avalon Hill and not SPI designed RICHTHOFEN'S WAR. We won't bother to refute other claims with hardly better credibility, rather—we'll let our games do our talking.

★★★★★

Dear Editor:

I am writing this letter in reference to two articles in the latest copy of the "General." I refer to the "A.H. Philosophy" column and also to the "Design Analysis." Both have reaffirmed my long held convictions on Avalon Hill games and the wargaming industry.

Randall Reed in his "Design Analysis" brings out the point that more than just for realism, a game must be playable! This is why I buy Avalon Hill games. Any attempt to justify a game's intricacy (for realism) by sacrificing playability is for the most part "unjustifiable." The latest games especially those by SPI are this way. Only the true "hard-core" wargamer will play them and probably only a few times. And quite frankly, any attempt to instill true authenticity in a wargame is "kidding" the public.

Various game producers would have one believe that realism is possible. But a game is a game and not much more. As Alan Augenbraun wrote in the last issue, "... It seems inane to simply assert that all rules of real combat can be applied to games (in which) reality (can) just barely (be) represented."

Again, I think that Avalon Hill should restrict itself to producing more classics like *Waterloo* and *Battle of the Bulge*. These have lasted longer than the ultra-complicated games such as "1914." Why change a good thing?

The second point is that both "Design Analysis" and "A.H. Philosophy" point out that people are blaming A.H. for irresponsible hobby articles about other companies. Quite on the contrary, it is the other groups, esp. SPI, which are attempting to belittle not only the quality of AH games, but also the intelligence of those who would play such "simple" games. Keep up the good work—you're still the best!

Ezio Manzin
Seattle, WA

★★★★★

Sir:

The general assumption in 1776 is that the British will win handily over the colonials. They are stronger, more numerous, immune to winter, have more supplies, and are capable of sea movement which enables them to strike almost at will. The Americans have difficulty even building up strength points as a result of militia and winter restrictions. But all is not so simple.

It is conceivable that the British can take every strategic town within a year, if the American lets him. The burden of play is on the colonials who must exercise the greatest care in slowing down the advance of the redcoats to prevent every and any unnecessary loss. Ideally, in two or three years time the British will fully control one area at most and will be able to advance no further productively.

We must realize that 1776 is a marvelous simulation of 18th century war of position in which forts, magazines, and supplies were critical. The key to a successful defense is the creation of one or two supplied forts in any area threatened, occupying it with some ten combat factors and then retreating with the bulk of your army. The

invaders will be forced to attack it or else leave an enemy force in their rear and fail to gain a strategic town. Attacking will result in the loss of a few factors, a supply unit, and valuable time. Build forts, entrench, and delay and a point will be reached in which the British will be stopped; by insufficient forces and the Americans' central position, and in positional warfare the central position is crucial.

For example, if the British attack the fomenters of rebellion in New England the American must not allow himself to engage in any attempts to stop them. Fall back to western Massachusetts to prevent any potentially disastrous combats and prepare a fort at West Point. Three-pronged attacks (Canada, New York, and New England) can be dealt with one at a time as Albany is the center position. When the British threaten Albany vacate Fort Ticonderoga and retreat the army, less a force at West Point, through Mohawk country force-marching as much as possible.

Eventually, at either Alexandria or Norfolk forts must be built along with magazines. Having exercised caution in avoiding pitched battles (but counterattacking exposed units), not excessively force marching, and being aware of minimizing winter reductions, the American should have a force too strong to be assaulted. The British can continue south but will be unable to take both the South and hold the main Continental Army which could head north destroying British garrisons and liberating territory. The central position has beaten the invader. This procedure works in the South too, especially when the fort at Ninety-six can be seized via forced march surprise.

The American can still win even if the British take a central position in Alexandria region. Now, because he's on offense, he'll have to attack in two directions or at least hold one flank while attacking by way of the other. This method is less decisive than any and is longer. By the time the North, for example, is pacified American forces in the Carolinas should be sizable and with the French fleet can amphibiously retake New England when the redcoats move south. Only incompetent Continental generalship could allow them to secure both areas at once.

To summarize, a mediocre commander can be victorious as the British, but it takes a patient and able leader to win with the Americans, and it most definitely can be done.

Yours truly,
Thomas E. Hilton

★★★★★

Gentlemen:

I read with interest Tom Hazlett's article in the Sept.—Oct. 1974 General. Mr. Hazlett, in his discussion of over-aggressive tournament play, makes a number of very valid points.

He does not, however, mention another facet of PBM play (tournament or otherwise) which does exist and can be just as dangerous. I refer to the fact that, due to the necessary postal delays between moves, a player can forget exactly what it was that he had in mind to do on his next turn.

The smooth flow of thought is obviously present in the FTF player as he effortlessly (we hope) plans his moves three or four turns ahead. The patterns of movement and attack appear as a whole on the board in front of him. But the PBM player, who will take a month to make the same moves, easily falls into the habit of playing each turn individually. Game strategy becomes overshadowed by turn-to-turn tactics, when it should be exactly the opposite. Even on a tactical scale one finds disconcerting gaps in one's memory. Where was the Fuhrer Escort brigade supposed to go this turn, anyway?

An obvious solution is for the PBM gamer to write himself little notes to jog his memory when he comes to move again. There are, however, serious drawbacks. If the notes are too short, then their author will be unable to make sense out of them when the time comes. To be truly comprehensive, most notes of this kind should run to several typed pages, in order to cover every possible move on the part of the enemy. But several typed pages per turn per game means an incredible amount of work which most people will have neither the time nor the inclination to do.

Of course, most PBM players can and will take a middle-of-the-road approach, wherein their notes, while not totally analyzing the situation,

will at least remind them of their overall plans. But the PBM player should be prepared, not only to take advantage of any unusually aggressive play on the part of his opponent, but also to exploit any strategic errors which his opponent may make as a result of overconcentrating on the tactical aspects of the individual turn.

Charles Starks
West Stockbridge, MA

Ed. Note: An interesting viewpoint although one contrary to what I've always believed. It is our opinion that PBM play does more for organizing a player's "game plan" than any amount of in-person play. PBM allows you to analyze every possible move from any of a number of angles without time pressures which can cause hasty mistakes. The player who takes this much time in a FTF game is being rude and inconsiderate to his opponent. Even after making his move the PBM player will find himself drawn back to the board to analyze his effort and how he could have improved upon it, searching at length for possible enemy countermoves. I never saw the brilliance of AFRICA KORPS until I had taken the time to play it by mail.

★★★★★

Dear Avalon Hill:

I got my new issue of the *GENERAL*, Vol. 11, No. 3, in the mail a few days ago and have been really excited ever since—especially about the new Elite Club; which I'm sure is going to be a resounding success.

Last week right after I got the new issue I mailed off my check and order form for the Elite Club, but now I suddenly remembered I'd not written the letter to you guys that I'd been meaning to scribe for some time now. Now that my ardor is a little abated, here are my bouquets.

Many issues of the *GENERAL* lie before me now. I am in the process of going through them selecting and reading the most relative and interesting articles from as far back as Vol. 2, No. 5 (Jan. '66). So I've been able to readily and rapidly examine these many issues right up to the most recent. (I've been a subscriber for a year now—the older ones are being lent to me by an old friend who introduced me to AH wargaming).

Therefore, I, perhaps more than the regular subscriber, can see the trend and subtle changes in your (our) very special magazine. There is no doubt whatever of the superb quality; it has always been there (in the context of the times, i.e., taking the *GENERAL* in 1966 versus any other like magazine of that period, etc.) but now it seems to have a real and warm undercurrent of the impending excitement when first opened upon receipt—a feeling that is not a false one, for me at least.

I find the newer format (beginning with the Vol. 10, No. 1 issue) really was the big step up, and all subsequent changes like the 32 page spread, Design Analysis, full coverage on a single subject have created a truly remarkable magazine—at any price! And for us it's a real bargain. I'm sure the effort has been terrific and I appreciate it.

In this latest issue, you ask for comments on the feature article; *BULGE: The Historical Perspective*. I set this one up right away to see the layout and found it really different and interesting. A good history lesson (and oh, what value we wargamers have in being able to view the whole board at once; talk about real-time total intelligence!) masterly done. I really enjoyed it. Being able to set up the exact historical Order of Battle and then being able to follow what unit attacked what enemy unit is different and of interest. I, for one, would like to see further examples like this.

I am particularly impressed with your decision to have certain games available as mail order; that seems to lend an air of preference to we subscribers—that feels good. Besides there are some of us who have no store in which to buy games anyway.

I felt the center spread showing the six new games a masterpiece of "drooling on command" that Pavlov would have been proud of. I could scarce take my scanning eyes off that page until I'd digested every line under every new game. A handy and concise format.

I didn't really mean to ramble at such length, but nice things are fun to expend adjectives on. I've not written to you before and part of the reason I did write was that I thought that perhaps I might be speaking for a lot of those subscribers who liked the issues but didn't sit down to write you all about it—the "silent majority" if you will.

T/Sgt. James H. Strobeck
APO New York, New York

READER BUYER'S GUIDE

TITLE: KRIEGSPIEL SUBJECT: FICTIONAL MODERN PERIOD

KRIEGSPIEL is the 14th game to undergo analysis in the RBG and was met with uniform if not complimentary, response. As was expected it generated the worst cumulative rating of any game thus polled — a 4.04. The only thing surprising about this is that it fared that well in a poll of veteran wargamers. **KRIEGSPIEL** has long been the object of scorn by veterans of the wargaming community, and it can readily be said that experienced players should probably forego the purchase of this title.

The game rated dead last in four categories (Physical Quality, Components, Realism and Overall Value) and next to last in two others (Mapboard & Excitement Level). Virtually all of this negative reaction is directly attributable to the game's target in the market place — the beginner to simulation gaming. Large numbers of counters, big mapboards, and thick rulebooks all combine to help confuse the novice. **KRIEGSPIEL** was designed with an eye towards this very fact which explains the scarcity of counters and our smallest mapboard ever — two factors very much disapproved by the veteran wargame fraternity. But **KRIEGSPIEL's** problems do not end with over simplification.

All of which is not to say that **KRIEGSPIEL** is not without any redeeming qualities. It spawned the matrix CRT and as such is the forerunner of the immensely popular combat system in **1776**. It also pulled an outstanding 2.93 for Play Balance and 2.13 for Ease of Understanding — two factors which go a long way towards explaining its success as a beginner's game. The playing time of 94 minutes doesn't hurt either. The game continues as one of wargaming's better sellers so it must be doing something right. Just how much this is attributable to the appeal of the title, the box art (which this writer finds mediocre at best), or merely the pricing structure is pure conjecture. However, if it is the latter, the recent price hike of all bookcase games to \$10 certainly won't help its sales — in which case we may see a new **KRIEGSPIEL** rising from the ashes more worthy of the title.

1. Physical Quality	3.77
2. Mapboard	4.20
3. Components	3.85
4. Ease of Understanding	2.13
5. Completeness of Rules	2.94
6. Play Balance	2.93
7. Realism	6.09
8. Excitement Level	5.20
9. Overall Value	5.29
10. Game Length	1 hour, 40 min

A.H. Philosophy

Continued from Page 28

been played by mail. Using the QUALIFIERS you get a good overview of how the individual has managed to obtain his rating and if he has a good pbm QUALIFIER it's a good bet that he will be a suitable pbm opponent. To be a viable tool, the AREA system will require upwards of 1,000 players to start with. Your participation will determine whether or not it will work. AREA Rating is a lifetime service. If you become inactive your rating is still maintained at no cost

to you, awaiting your eventual return to active gaming. You'll receive a membership card with your AREA number, victory claim forms, and complete instructions after you subscribe to the service.

Should the AREA system fail to raise the necessary subscriber support we'll refund credits to all those who subscribe.



Figure 2

QUALIFIERS FOR AREA RATING SYSTEM			
QUALIFIER	FREQUENCY	OPPONENTS	PBM GAMES
A	1-5	1	1
B	6-10	2-3	2
C	11-15 Provisional	4-5	3
D	16-20	6-7	4
E	21-25	8-10	5-6
F	26-30	11-13	7-8
G	31-40	14-16	9-10
H	41-50	17-20	11-12
I	51-60	21-25	13-15
J	61-70	26-29	16-18
K	71-80	30-34	19-21
L	81-90	35-39	22-24
M	91-105	40-44	25-28
N	106-120	45-50	29-32
O	121-135	51-55	33-36
P	136-150	56-60	37-40
Q	151-165	61-66	41-45
R	166-180	67-73	46-50
S	181-200	74-80	51-55
T	201-220	81-87	56-60
U	221-240	88-95	61-66
V	241-260	96-103	67-73
W	261-280	104-111	74-80
X	281-300	112-120	81-86
Y	301-350	121-128	87-93
Z	351+	129+	94+

THE QUESTION BOX

ALEXANDER THE GREAT:

Q. When using the Combined Arms rule may the Persian player attack a Macedonian unit with both infantry and phalanx units?
A. Yes.

Q. Are the hexes containing brown splashes in the center plain of the board considered to be slope hexes? How about V13?
A. No. V13 is plain terrain as are all hexes containing both light brown and green coloring. Slope hexes are W1, V2, U2, T3, S4, R4, Q4, P5, etc. and are found only in front of the Macedonian baggage camp.

Q. May routed units be forced off the edge of the board when other avenues of retreat exist?
A. No.

Q. May a unit attack another unit that is adjacent to its frontal combat area if the attacking units facing arrow is not pointed directly towards the unit to be attacked?
A. Yes—Page 4; Attacking #5 clearly defines a units attack frontage as the hexside pointed to by the directional arrow plus the adjacent hexsides to the immediate right and left.

Q. May horse archers fire during their split move and then end movement in a charge against an enemy unit?
A. No.

Q. May horse archers fire during their split move at a melee unit?
A. Yes but such fire cannot be a separate attack—it must be combined with the attack of the friendly melee units which means that the attack must take place during the combat phase rather than the movement portion of the turn and thus the horse archer may not continue his move after firing.

THIRD REICH:

Italian Situation Card Duration Times are wrong for the 1939 Scenario and Campaign Game. They should read "Fall, 1939—Summer, 1942" and "Fall, 1939—Summer, 1945" respectively.

Q. How are units landed or evacuated from islands such as Crete, Cyprus, and Rhodes which have no ports?
A. Sea Escort can be used to land and remove troops from completely friendly islands without ports as long as the units involved either embark or disembark from a port hex; the fleet returning to its base of origin. Note that this cannot be extended to other areas without ports such as Finland.

Q. My set didn't come with enough neutral units!
A. Yes it did. Neutral units are taken from the Neutral pool—there aren't separate counters for every neutral country as it is extremely unlikely that all or even many of them will be activated at any one time.

1776:

Q. Which types of naval units can act as ferries?
A. All naval units, except the optional Continental Navy unit, may act as ferries.

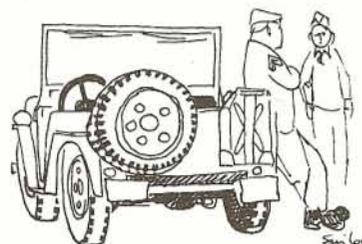
Q. What is the movement cost to debark units from a naval unit and embark different units onto it in the same turn and in the same port hex? If enemy units occupy the hex?
A. It would cost 10 MP for the naval unit (5 for embarkation, 5 for debarkation) in a non-enemy occupied hex, and 20 MP (10 for embarkation, 10 for debarkation) in an enemy occupied hex.

Q. Are CA units in Canada considered to be in the Middle States or New England Areas for the purpose of determining Area Status?
A. They are considered to be in Canada, and therefore do not affect the status of either area.

GAME DESIGN EQUIPMENT

Like to make your own variants for Avalon Hill games? Or perhaps you'd just like to try your hand at designing a game on your favorite period? We have all the materials you'll need to turn that budding idea into a workable prototype. All orders should be addressed to the Parts Department and include \$1.00 extra for postage and handling charges.

- 22" x 28" Plain White Hex Sheet \$1.00
- Unmounted; specify size:
- 5/8" hex or 13/16" hex
- Blank Mapboards \$1.50
- Specify size: 8" x 16",
- 8" x 22", or 14" x 22"
- Blank Troop Counter Sheets \$1.00
- Die-cut white only. Specify size:
- 3/8" units or 5/8" units
- Dice ea. \$.25



WHEN THE GENERAL GETS STUCK FOR A MUG, HE SENDS ME OVER TO THE COMPUTER ROOM.

Origins I

ORIGINS I is the first national wargaming convention to be held in Baltimore — the city that originated the wargaming craze in 1958 with the publication of **TACTICS II**. For the first time ever Avalon Hill sponsors a convention — through the auspices of Interest Group Baltimore — a group of 150 Baltimore area gamers with gaming interests as diverse and entertaining as they come. Make plans now for the pilgrimage to Baltimore — the site of wargaming's showplace convention. Additional information will be presented in these pages every issue.

THE DATE: July 25 — 27, 1975

THE PLACE: John Hopkins University, Baltimore, MD

THE TIME: of your life!

- Among the fun to be had at ORIGINS I:
- * A \$500 cash prize Avalon Hill Classic Tournament presented and officiated by the P.W.A.
- * Fantasy trips through Dungeons & Dragons the latest miniatures craze.
- * Armor Miniatures — Judged by the Johns Hopkins Historical Simulation Society.
- * Diplomacy Tournament — the ever popular game of political intrigue.
- * A *Richthofen's War* demolition derby.
- * *Origins* Tournament — in honor of our name.
- * Exhibitions from the far corners of the wargaming world.
- * Auctions, private gaming, half-priced tables, and other events as they're added — all scheduled in such a way to give you the maximum participation — whether you win or lose.
- * Inexpensive on-campus lodging and meals.

The ATTACK Wargaming Association has announced that it will sponsor the 1975 FIELD MARSHAL OPEN TOURNAMENT on April 5th. The entrance fee is \$4 in advance and \$5 at the door for this two day event to be held at the University of PA Mitten Hall in Philadelphia. The game utilized in the tournament will be *STALIN-GRAD* with collectors items games used as prizes. Also on hand will be an exhibit of miniatures, games, and military ordnance. Further information can be obtained by writing the Association at their 314 Edgley Ave., Glenside, PA 19038 address or calling 215-887-3876.

We have been informed of the beginning of yet another Interest Group; the Washington Gamer's Association. Spokesman Dan Gallagher promises a minimum of 12 eight hour meetings per year in exchange for yearly dues of \$3.00. Interested parties should contact him at his 6425 King Louis Dr., Alexandria, VA 22312 address. Guest memberships good for one meeting are available for 50¢.

Interest Group Baltimore continues strong with interest now focused on the 1974 Football Strategy League play-offs as Avalon Hill designers Tom Shaw and Don Greenwood have again advanced to the play-offs in hopes of a rematch of their 1973 Super Bowl contest. Area gamers are invited to the gameroom at 1501 Guilford Ave. any Saturday between 10 and 5 for competition of all sorts. Half-priced damaged Avalon Hill games are available across the hall during every session and throughout the week.

Speaking of Interest Groups, the one in St. Louis continues to impress us with their ongoing projects. Robert Clemensen, owner of General Grant's Hobby Haven at 8434 Watson Rd. in St. Louis, reports that members of the group put on a 4 weekend competition for display purposes in his store which really increased wargaming interest in his area. In addition, Mr. Clemensen hands out a sort of "hobby invitation" sheet to each purchaser of an Avalon Hill game directing them to contacts in the local Interest Group. St. Louis residents can contact the ringleaders of this group by calling Oliver Wischmeyer at his 761-0626 number. Incidentally, Mr. Clemensen reports that he sold out of his first shipment of *THIRD REICH* and *BASKETBALL STRATEGY* on the first day!

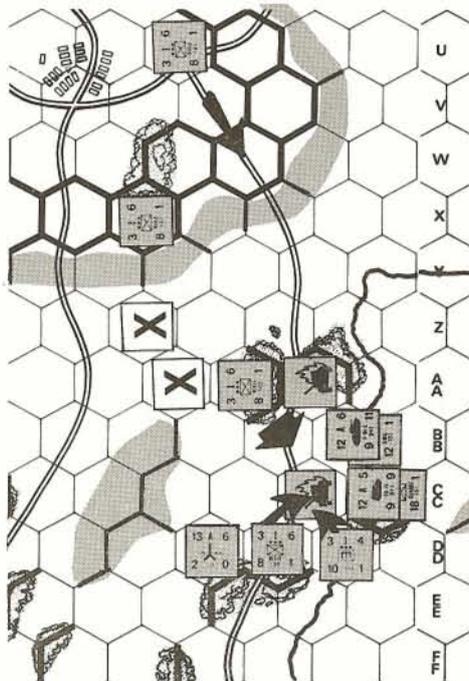
Yet another Interest Group in the California area goes under the zany name of OOPS (Organization of Pseudo Strategists) and has published their gaming schedule for the coming year. We have been familiar with the activities of this group for several years now and are impressed with the "fun" grasp they have on organized gaming. Virtually all of their gaming activities are scheduled into tournaments of some sort with cash and trophy prizes — the winners of which are judiciously recorded in the organization's record books for posterity. Among their events planned for 1975 is their 7th Annual Football League and a totally new concept; a Strategy Olympics. Players choose 6 games from a specially prepared list of 10 and play each game twice so that each player must play both sides. Among the groups other scheduled events are tournaments in *RISK*, *CHESS*, *LE MANS*, *BASKETBALL STRATEGY*, *ORIGINS OF WWII*, and *MIDWAY*. If you live in the Southern California area you owe it to yourself to contact Jim Reilly at his 2609 West

Infiltrator's Report

LaVerne, Santa Ana, CA 92704 address or call 714-979-4871.

We are getting considerable complaints about defective games because they do not include outer sleeves, plastic trays, or clips. Due to inflation all of these items are being phased out of our games. If you get a game without these materials it is not defective — it just means you've gotten one that was manufactured in the past 6 months. Similarly, many people question whether or not their *THIRD REICH* mapboard has been assembled correctly. Only the two middle boards are taped together. The outer sections must be laid adjacent to the center sections to complete the mapboard. This was necessary due to the strain on the tape caused by folding a board of this size that many times to accommodate the bookcase packaging.

Contest No. 63 required a 2-1 attack on 941/181 by the 75mm AT and a 3-1 rifle attack on 161 by the German Rifle unit 142. The remaining attacks are dependent upon results of the 75mm attack, but would consist ideally of a 1-1 CAT on 811/161 by 111 and 144. If the T-34 and its passenger are destroyed in the initial 2-1 attack the infantry are freed for assaults on the Su-76 and its passenger. The main target should be the T-34 because it represents the best breakthrough vehicle due to its speed. So in the event of partial success the infantry must use close assaults to destroy the main threat. In the event of a dispersal the T-34 will probably succumb to a minus 3 close assault. As for the Su-76 high hopes are pinned on the rifle (142) attack to at least disperse the guards. If the infantry gets the opportunity to attack the Su-76 the chances are fair that he will be dispersed and eventually destroyed. However, this is not vital for the German moves effectively block a Russian breakthrough. The route to the west is very slow and the Su-76 cannot make it to a safe spot. Rifle 141 blocks maximum use of the road.



The ten contest winners were: J. Stabile, Eatontown, NJ; S. Meckel, Baltimore, MD; K. Green, Newburgh, NY; G. Mancuso, Tewksbury, MA; R. Mormile, Naugatuck, CT; G. Mouton, New Orleans, LA; J. Bulger, Altoona, PA; J. Brown, Irving, TX; R. Feeser, Woodlawn, MD; and F. Gulla of Cambridge, MA.

The "Handbook of Simulation Gaming in Social Education" is just one of the many such educational reference books listing Avalon Hill games. As simulation gaming gains greater acceptance in educational circles, booklets such as these and games in general will become more widespread. Educators in our reading audience interested in this project may order one for \$3.95 from the Institute of Higher Education Research and Service, P.O. Box 6293, University of Alabama 35486.

Once again we find it necessary to remind readers of the necessity to enclose a stamped, self-addressed envelope with their rule queries. Those who don't will simply not be answered! This applies especially to overseas and Canadian readers. Remember also that the answering service does not deal with historical or design questions, but rules interpretations only. In addition, do not pose questions by merely listing grid co-ordinates. We can't take the time to set up each of the hundred situations we get each week—you must draw a diagram of the situation to include with your question.

Our supply of back issues of the *GENERAL* are rapidly running out. The list published in the December issue is already obsolete. Delete the following issues from that list: Vol. 5, No. 5; Vol. 6, No. 1; Vol. 6, No. 3; Vol. 9, No. 2; Vol. 10, No. 1; and Vol. 10, No. 3. Whenever ordering back issues be sure to give an alternate choice in case the issue you've requested has since gone out of stock.

Our new parts lists mistakenly lists clips as part of the *PANZER LEADER* game. Although clips are available for purchase with this game they do not come included with each set. Sorry, but that's just one of the conveniences we've had to sacrifice due to inflation.

The cost of all rulebooks, manuals and obsolete game parts has increased. We suggest that you request a new parts list before ordering these materials. Because the 25¢ coupons have been permanently discontinued you may use those that you have in any quantity for payment of direct mail purchases.

A reminder that postage coupons are usable only towards the shipping costs of complete game purchases. Many of you have been ordering parts or games and paying for them with these coupons which is not allowed. If you do this, your order is held until you forward the necessary funds.

Many subscribers are experiencing difficulty with the smooth delivery of their magazines because when they resubscribe they fail to mention that they are current subscribers or which month they would like their new subscription to start with. Please provide us with this information when resubscribing in the future.

