30th Anniversary
Commemorative Issue of
the Normandy Landings
For a long time now we've been aware of your desire for more quality games. In the past, Avalon Hill has limited itself to 1 or 2 wargame releases per year with the idea of producing the best possible product. This policy has been very successful as testimonials to the new generation of Avalon Hill games will attest. Both Richthofen's War and 1776 have been extremely well received by both the wargaming fraternity and the public at large. Yet, during this time we've also been sensitive to the desires of our devoted followers—personified mainly by you—the readers of the GENERAL. We've heard your complaints about the cancellation of your favorite games and despite what you may think, they have not been falling on deaf ears. The fact remains, however, that all our discontinued games contained serious flaws which dictated their removal from the market. Yet, as many of you have pointed out, this is no reason to give up on the titles' other redeeming features. It is with this thought in mind that we set to work redesigning some of the more popular games with the idea of making them available once again. Redesigning such games wasn't all that much of a chore—after all we had the most comprehensive and expensive playtest possible to determine what was wrong with them—the actual redesignation was the real problem with the project was one of marketing. We didn't want to flood the retail market with these games because it was not the general public which put up the clamor for their re-release—it was you—the readers of the GENERAL. And that is what we will be doing effectively this coming fall.

The games designed especially for mail order will be sold only direct from Avalon Hill. Oh, there may be exceptions and occasionally a store in your area may stock some of the mail order games, but we won't be pushing them and generally speaking they won't be widely retailed. The Mail Order division however will consist of all the Avalon Hill games—not just those designed especially for Mail Order. The $1.00 postage charge per game ordered will still be in effect but subscribers to the GENERAL will not have to pay any postage costs. Starting with this issue a $1.00 coupon will be included in every issue of the magazine. The coupon is good for $1.00 off postage costs for any complete game order. No more than one coupon can be used per game purchase, nor can it be used for a parts order. Don't look for the games in your local store because chances are they won't stock them. We'll notify you when you can place your orders directly with us. Naturally, because these games are being produced primarily for readers of the GENERAL, the per game press run will be comparatively small thus cutting our savings from an economy of scale viewpoint. But there will be no middle man to pay so prices should not rise. We haven't worked out the final price range yet, but will try to keep it to a minimum.

The mail order line will number 5 titles in 1974 with more to come in following years. It is unlikely whether any of the future mail order games will be remakes of earlier cancelled subjects. We've pretty much exhausted the list of those with redeeming qualities and future mail order titles will be on entirely new subject areas. There will be those who argue that we are destroying the "collector's item" value of cancelled games by reprinting them. This may be true in part, but note that all of the games being reissued will have very significant changes. They will not be simply a rehash of old titles. Besides correcting flaws in the original designs these games will be different in many respects. They will be redesigned—not just edited for greater clarity. For the most part they are entirely new games and should not impair the value of the "first editions" which are something else altogether. Anzio is a case in point. The recent avalanche of letters to "bring back Anzio" as a result of Tom Oleon's thesis in the game in Vol. 10, No. 5 only reinforced our already made decision to reissue the game. Tom himself was the man we chose to author that redesign effort.

There are many games about which most wargamers agree. Panzerblitz, for example, is esteemed nearly universally. Anzio, on the other hand, was admired greatly by only a relative few, but left unplayed by the majority. The controversy surrounding Anzio was not so much about the game's merits, but whether it was worth the trouble to learn and to play. Few dispute the fact that it had an unusually deep and colorful map, a board, very attractive unit counters with great historical accuracy and character, and extremely elaborate rules which are obviously the product of careful, comprehensive research, and which do achieve a high degree of realism. Nonetheless, even the game's most fanatic admirers grudgingly concede that the units were cumbersome to set up and use, and that the rules in places were as confusing as a labyrinth. Anzio was discontinued with considerable reluctance, all the more so as interest in the game refused to die out, and in certain aspects it remained a high point of game design. whatever its drawbacks. So we asked ourselves if the flaws and shortcomings of the game could be lessened, even eliminated, without sacrificing its many good points. Could it be made significantly easier—and more fun—to play, without losing realism and historical accuracy? Could it be made more realistic by drawing on the advances in wargaming during the 5 years since it was designed? We believe the answer is emphatically "Yes", and we think you will agree. Therefore, we have decided to re-issue Anzio, in a completely revised form.
The sinister storm clouds foreshadowed an ominous stage setting. Occasional drizzles fell like gentle tears upon the silent earth. While a brilliant moon intermittently cast an aura of mystery.

A German sentry glanced up at the sky, which seemed to portend bad weather. It was very reassuring. Another quiet night and a chance to relax a little. Certainly no sensible man would dare risk an enemy landing today or even tomorrow.

As the winds continued to whip up a rough sea, plans were formulated to hold a commanding officers' conference and subsequent map exercise in Rennes. Every divisional commander, along with two regimental commanders, were expected to be at the Seventh Army meeting at 1000 hours, the 6th of June, 1944.

At the time, a lot remained to be done before that 600-mile-wide coastal gate to Europe would be securely barred. Preparations for the receipt of the Allied invasion were far from complete. Field Marshal von Rundstedt, Commander-in-Chief West, had repeatedly complained of the steady drain of the Western Army's able-bodied manpower and supplies. Two ingredients that were essential to build a strong, mobile reserve force. The continued delay for over half this 600-mile-wide coastal gate to Europe had to be made. The original scheduled date for the Allied invasion was set to be the 5th of June. However, an unexpected storm had thwarted the initial vanguard of troops heading for France and all operations had to be immediately reversed. Several days of bad weather were predicted but all signs indicated that the 6th of June would be a relatively calm day. If placed ashore on the 6th, there was a good chance that adequate supplies and reinforcements may not be able to land in order to sustain the beachhead. The success or failure of the entire Operation now rested with one man.

General Dwight D. Eisenhower, the Supreme Commander of Allied Expeditionary Forces, decided to take the gamble. The attack was delayed for 24 hours, D-DAY was now to be June 6, 1944. The place: Normandy.

It was here, that all the strategic requirements indicated that a surprise attack on the lightly defended Norman coast between Caen and Cherbourg would yield the best fruits of victory. Removed from large concentrations of German troops and airfields and with good terrain for airborne landings, a beachhead could be consolidated rapidly and greatly expanded with the proper influx of troops and supplies. Furthermore, the large port of Cherbourg lay close at hand and thus offered ideal handling facilities for those additional men and material so vital for the life of the Allied drive.

Defensively, the Germans were situated as shown on map no. 2. A common military rule-of-thumb practice was that a division could not effectively control a frontal sector much over six miles in length. Yet, here, each coastal defender was responsible for an average length of about twenty-five miles! The only immediate force available in this sector was the 21st Panzer Division stationed east of the Orne river.

Around midnight, 1,888 bombers and transport aircraft, with 512 gliders, were carrying the officers and men of the U.S. 82nd and 101st Airborne Divisions to their jump targets. The 82nd Airborne Division went down in the northern part of the landing zone. The 101st Airborne Division landed between Carentan and St. Mere Eglise. Casualties were higher than expected. Meanwhile the 6th British Airborne Division succeeded in landing their men on the Orne Bay, north of Caen.

Alarm! Paratroops are landing! Confusion reigned in the rear areas of the 84th German Army Corps. At first it was undecided if these drops were possibly a reconnaissance or a commando raid. However, once additional reports continued to flow in from the landing sites it left no doubt that this was a large scale operation. The invasion had finally arrived!

At that moment, there were 6,480 transports and landing ships crossing the Channel in 12 lanes. Six battleships, 22 cruisers, 2 monitors, 119 destroyers, 133 frigates, 360 MTBs and 25 flottillas of minesweepers surrounded the largest and strongest armada ever to be assembled. The German radar operators, when first picking up this vast array of naval shipping on their scopes, simply could not believe their eyes. Nothing like this had ever been seen before. At first it was thought that the equipment had malfunctioned or that some new form of Allied jamming device was being used. Not true. Each blip did represent an individual ship, and they were steadily drawing closer to the coast!

The invasion site was divided into five beach sections (see map no. 2). The first elements of the 1st U.S. Army, composed of the 1st, 4th, and 29th Infantry Divisions, were to land on "Utah" and "Omaha" beaches. The 2nd British Army was directed as follows: British 50th Infantry Division would land on "Gold" beach, the Canadian 3rd Infantry Division on "Juno", and the British 3rd Infantry Division disembarking on "Sword" beach.

Many landing craft were destroyed in the water through artillery action and Rommel's underwater obstacles. Men abandoning a damaged or sinking landing boat had to take their chances with the numerous minefields, metal spikes and steel-girders scattered throughout the landing zones. Due to Rommel's devilish mastery in the art of erecting destructive obstacles, only 80% of the troops, 50% of the vehicles, and 25% of the equipment which the Allies had planned to put ashore that day, actually arrived.

The rest is now military history. The Germans had failed to grasp the importance of this Allied invasion in time to conduct a proper counter to their attacks. As evening came to the coast of Normandy, American forces had established a beachhead some 9 miles wide and 2½ miles deep. British forces were located between the Orne River and north of Ryes, 15 miles wide and 6 miles deep.

This was only the beginning!
THE GENERAL
THE VARIATION

The “state of the art” (game design to the uninhibited among you) has progressed steadily and rapidly in the 13 years since D-DAY made its appearance on the wargame scene. As such it is rather clear that the game lacks many of the “finer” niceties which the hard core has come to relish in recent years. As the “art” progresses many people tend to put down the achievements of the past for supposedly bigger and better things. Such a change came about in 1965 when D-DAY was revised in favor of a 17 square supply rule, SAC attacks, and no landings in Southern France. This writer is one of many who thinks the “improver” overstepped his bounds and turned an excellent game into merely a good one in search of additional realism.

Who really is to say what constitutes realism in a game? Can the designer who authored the ‘65 D-DAY version really prove that the supply situation and Allied air superiority weren’t actually accounted for in the original design in terms of built-in combat and movement factors? Design is largely a matter of scope and perspective and the would-be innovator who plays with another man’s creation without absolute knowledge of the original designer’s rationale is only kidding himself in thinking that he is building a more realistic simulation.

For many months vast stockpiles of supplies—guns, tanks, mortars, trucks, mountains of ammunition, fuel, and food—have been gathered for this historic moment of truth. After many assessments of the German strength, including the coastal defenses and the disposition of enemy troops, the Allied commanders selected the Invasion beaches that would challenge the mythical walls of “Festung Europa.”

Hundreds of thousands of soldiers had been especially trained in landing techniques. Thousands of landing craft were assembled to be ready at a moment’s notice. The time had now come for the liberation of the Nazi oppressed European continent.

The date for the big push was set for June 6, 1944. History was to record this “longest” day as D-DAY!

The stage is now set and the act awaits the players. What follows is a set of variant rules that shall challenge the player oriented towards the ultimate in realism.

ORDER OF BATTLE

Allied Units: Additional units have been included in “Allied Units Available in Britain.” Check the “Readers Response” page for these new units.

German Units: Revised time schedule of available new units. During the “Prepare for Play” set-up, the following units must start from any of the red star hexes: Infantry—30SS, 363; Parachute—2; Panzer—3, 9SS, 10SS; at Paris—328 Static Division (in any one city hex). Six additional Static Divisions may be placed inland as “Training” Divisions. Check the Readers Response page for additional new German units.

STACKING LIMITS:

Every Division has a Stack Point Value of 2 points. Every HQ unit, Brigade, Regiment, and/or a Division that has been reduced to half or less of its original assigned Attack Factor has a Stack Value of 1 point. Maximum Stacking Points allowed per hex: Allied—4 points; German—6 points.

COMBAT RESULT TABLE:

The Avalon Hill Tournament CRT of either Blitzkrieg or Guadalcanal shall be used. The maximum advance or retreat is dictated by the units normal Movement Factor.
FORTRESSES:
German Supply Storage of each Fortress is to be secretly determined and recorded as follows:
1. **Three Complete Fortresses:** Complete Supply Reserve; Defending Units are **not** affected by the "Isolation" rules.
2. **Four Partial Fortresses:** Supply Reserve of 12 consecutive turns before "Isolation" elimination.
3. **Remaining Fortresses:** Supply Reserve of 3 consecutive turns before "Isolation" elimination.

If any Fortress becomes Allied controlled, then the same pre-determined German Supply Storage, for that Fortress, still applies but now for the controlling Allied units.

If units in a Fortress decide to attack out then it can select any one or more adjacent hexes to attack, and with any one or all of his units from the Fortress. It does not have to engage all of the adjacent enemy units. However, if the "breakout" attack results in an Attacker Retreat then the attacking Fortress units are automatically eliminated.

MOUNTAINS:
Costs each unit 2 MF to enter a Mountain hex.

GARRISON UNITS:
All Beach hexes or Inland Ports used to disembark Allied units must be garrisoned by at least one Combat or HQ unit of a minimum of 1 Defense Factor.

ALLIED COMMANDO (C) AND RANGER (R) UNITS:
These Special Units are not limited to the Invasion turns and can land on any Coastal hex on any turn and move 3 MF in the same turn. These units require no supply line or Supply Units to maintain their Combat effectiveness. Their blocking effect on Enemy Units during retreats is the same as applied for AB Units. (Air Drop) In order to be reused the unit must be

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### Tournament Game Attrition Table

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#### Weather Effects:
- **The 5th to 15th turns and the 43rd turn until the end of the game are automatically “Clear.”**
- **Other turns, and their Weather Effect are determined at the start of each Allied turn by referring to the Weather Table.**

#### German Parachute “Air Drop” Capability:
- **The possibility of a one-time German Air Drop and the maximum number of German Parachute Unit Attack Factors allowed is determined by the following table in the “Prepare for Play” time.**

#### SAC Bombing:
- Allied use only, utilizing standard AH rules.
- Maximum of 2 SAC Bombings per turn and 12 SAC Bombings per each of the two Air Time Periods.

#### Flooding in Holland:
- The Islands in Holland—hexes 1-16, J-16, J-17, K-17 and K-18 can be subject to a flooded condition either separately or all at once.
- The procedure and its effects are as follows:
  1. During the “Prepare for Play” turn the Germans have the initial option of flooding the entire area or any section of it.
  2. Whichever side occupied the Island hex last, can declare the Island hex to be “flooded” during or after their turn.

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moved "out-to-sea" for at least 4 Complete Turns. If "eliminated" by the CRT, the unit requires at least 12 Complete Turns before it can be reactivated through normal replacement factors.

TACTICAL AIR SUPPORT:
To be used only in providing additional Attack Factors to Combat Units. TAC factors are nontransferable from one Time Period to another Time Period. The maximum limit of TAC factors per turn is: German—3 TAC, 2 TAC per Battle; Allied—6 TAC, 3 TAC per Battle.

Available TAC factors: Time Period (1st to 21st turns)—Germans: 9 TAC; Allied: 24 TAC Time Period (35th to end of game) German: 6 TAC; Allied: 30 TAC

NORMANDY/LE HAVRE:
The two beaches are considered as one Invasion Beach area, use the allowable unit table of the Normandy area only.

ALLIED HQ UNITS:
At least one HQ unit must be brought ashore for every 24 Unit Stack Points.

ATLANTIC WALL DEFENSE:
The Germans will be allowed to indicate any 16 Coastal hexes, during the "Prepare for Play" turn, as "Atlantic Wall" Defense Fortification areas. If attacked from any Sea Coastal hex they will receive an added 2 Defense factors, as long as they are attacked from the indicated Coastal direction only and if occupied by at least one German unit of equal Defense factor value. If attacked from a combination of Sea & Land hex directions then the Defense "bonus" will not be applied to the defending German units.

ALLIED NAVAL FIREPOWER:
Naval Firepower can provide additional Attack Factors to any Allied unit within 2 -land
hexes from a Sea Coastal hex. Such support is limited to 2 factors per battle and it is non-accumulative. Naval Firepower is not available during any “Sea Storm” turn.

Available Factors for the First Invasion: 1st turn—5 factors; 2nd turn—4 factors; Balance of Game—2 factors per turn.

Available Factors for the Second Invasion: 1st turn—3 factors; 2nd turn—2 factors; these are additional factors which are in addition to those granted for the balance of the game.

REFORMING OF UNITS:
A player can combine several understrength units to reform one stronger unit at anytime during the game. The procedure is as follows:
1. During the Movement Phase of the player's turn, move the unit to be rebuilt to any City hex not in enemy ZOC.
2. Subject to Stacking Limits, move the remnants of other units that are to be combined with the understrength unit to the same City hex. They can not be moved for the balance of the player's turn, nor can they engage in Combat. They can defend themselves, if need be.
3. The Combat Factors of the remnant units are added to the unit that is being rebuilt, and the remnant units are eliminated automatically placed in the "Dead Pile."
4. At the beginning of the following friendly turn, the rebuilt unit can be moved in the normal manner and engage in Combat at its new strength.
5. Armor, Panzer, Recon, and/or Panzer-Grenadier units can reform one another and Infantry units. Infantry can only reform into another Infantry unit.

LANDING INVASION COMBAT:
Allied units that are attacking from a Sea Coastal hex and suffer a "Defender Retreat" result shall incur the normal Combat Factor losses, plus the Defender Retreat factors shall count as additional Combat Factor losses. The remaining Allied units are then allowed to remain in the Sea Coastal hex. Adjacent German units are not required to counterattack the remaining Allied units in the Sea Coastal hex and may choose to remain on the defensive. However, if new German units are added to the square they must attack.

ALLIED REINFORCEMENTS:
Allied Units arriving on any garrisoned beach hex or Inland Port can move their full MF distance in the same turn and engage in attacks, if supplied.

SUPPLY UNITS:
Supply Units are required to support any attacks being made in a turn. The Germans have a limit of 8 Supply Units; the Allies cannot have more than 12 Supply Units.

One Supply Unit can support one or two attacks for one turn. It can supply any number of attacking Combat Units within 5 hexes (unobstructed by enemy ZOC). It is not required for attacks of 1-3 odds or worse, or for Combat Units attacking from a Fortress. The attacker is not allowed to place his Combat Units under an enemy ZOC if such movement would place it more than 5 hexes away from a Supply Unit at the end of the movement phase of his turn. Supply Units can arrive, move their full MF distance, and support an attack all in the same turn. Supply Units have no Combat Factors and no ZOC. They are removed once they have supported an attack. Supply Units cannot be air-lifted.

USE OF PARACHUTE UNITS: (additional variants to the AH rules.)
All Airborne (hereafter referred to as AB) must be air dropped within 5-hexes of a Friendly Unit and direct contact must be made within one complete Game Turn and/or have an unobstructed Supply Line to an Inland Port or a friendly beach hex, in order to insure Supply. Otherwise, the Unit is immediately eliminated. AB units can effectively block all types of German units in retreat, from an Attack only, except for Panzer and/or Panzer-Grenadier units of at least equal (1-1) ratio to the blocking AB units; i.e., a retreating Panzer unit of 5 factors could effectively by-pass an AB unit of 4 factors, without attacking or losing any factors. This applies only during the initial Air Drop turn.

AB units Movement Factor is reduced to 2 MF and no Supply Unit is required for attacking only during the Air Drop turn.

AB units must spend at least 4 turns in reserve or out of enemy ZOC before it can be reused for any new Air Drop assignments.

Supply Units may be moved adjacent to any enemy Combat or Supply Unit, but only in the turn they are to be used to support attacks. Supply Units can be captured by any enemy Combat Unit (moving over or adjacent to it) and the captured Supply Unit can be used to support attacks in the same turn. Only by capturing Supply Units can a player have more Supply Units than the above limit. Unavailable Supply Units are non-accumulative. Note that the normal Avalon Hill Allied Supply capacity and range limit rules are voided when this rule is used.

GERMAN SPECIAL RULES:
1. "Prepare for Play" turn: 6 Supply Units can be placed anywhere on the mapboard.
2. Turns 4 to 12: 1 Supply Unit arrives per turn from any starred hex.
3. Turns 13 to end of game: 1 Supply Unit arrives every odd-numbered turn, except for during the "Snow" period.
4. "Snow" Period: 1 Supply Unit arrives on turns 25 and 29 only.

ALLIED SPECIAL RULES:
1. First and Second Invasions: the initial 3 turns are self-sufficient and no Supply Units are required for the attacking Combat Units used in the Invasion landings.
   Thereafter, from the 4th succeeding turn on: 2 Supply Units arrive per turn.
2. Sea Storm: No Supply Units are allowed to arrive.
3. "Snow" Period: Supply Units arrive every even numbered turn.
The “D-DAY DEFENDED” article penned by GARY GYGAX in Volume 10, No. 1 drew considerable criticism from American players who said it just “weren’t so; i.e., that the German stood an even chance of victory. They claimed that the combination of American replacements and airpower was just too much for the German to handle in the 65 edition. We gladly agreed with their hypothesis on one condition—that the German players they’d been manhandling didn’t have too much on the ball.

To prove our point we elicited the aid of two staff members, Dave Roberts and Bruno Sinigaglio, who gave us the opening defenses—naturally we used our top East Con tournament honors in 1972 and ’73 respectively. Although the methods they use are different at night and day, the end result in the same: a lot of German wins.

Let’s explore their defense beach by beach, compare the relative strengths and weaknesses, and see if we can’t open another chapter in the never ending play balance debate.

For clarity’s sake we will code name the Roberts defense “Up Tight” and the Sinigaglio set-up “Hard Smash.” The former will be dealt with first.

**UP-TIGHT NORTH SEA:** As is the case with all good German defenses the North Sea is loaded for bear. 30 defense factors man the beaches and are backed up by a paratroop screen of 26 more. The presence of the Northern reinforcements adds additional bulk to the German defense. Note the positioning of the German reinforcements. The three 5’s and solo 3 are seemingly a perfect force for dealing with any airborne operations to the north, while allowing the remainder of German reinforcements to deploy to the South. The paratroop screen prohibits any airborne unit to enter the main battle on the beaches leaving the Allied player with his choice of one of three 1-1’s on any of the 5 defended beach squares. Although K9 is unfortified, any units moving inland will face a 1-2 versus the 2SS in Ostend. Not a very appealing prospect, but after inspecting the rest of the defense you may well agree that any 1s on F13, O14, and H1/5 offer as good a chance as any. Coupled with SAC attacks on the 276th and 17th, and airborne operations against the 47th, a very lucky first turn could end the game quickly. Realistically speaking, such an attack will end the game soon, but more often than not, with a German win. Even with perfect results the Allied player will be hard pressed to clear Amsterdam for supply and without it this invasion can go nowhere.

**UP-TIGHT PAS DE CALAIS:** As in real life Pas De Calais is the most heavily defended invasion site. Note the “sacrifice” of the 338 Static which is seldom selected as an Allied invasion site. Note the “sacrifice” of the 338 Static which can be attacked at 6-1. However, placement here instead of on R30 takes away the 4-1 on the 77th Inf. and the 1-1 on the 2SS which are possible otherwise. Le Havre still must be attacked at 1-2. Any invasion which must rely on successful 1-2’s is extremely risky though, and may as well be forgotten.

**UP-TIGHT NORMANDY:** Normandy is a traditionally easy area to bottle up and usually doesn’t require too heavy a defensive commitment. Dave Roberts apparently agrees with the theory, as he allows an unchlorinated landing in Cherbourg and Q33. With Cherbourg forcibly taken, supply is no problem. Breaking out of the Normandy pocket is another story however. The strong paratroop screen ruins any chances for effective airborne tactics. Even with a successful 1-1 on the 3rd Paratroop Division in Carentan the German is strongly entrenched in Bayeux, St. Lo. and Avranches. A Normandy invasion is a lost cause against this defense.

**UP-TIGHT BRITANY:** Although definitely the best invasion site in this defense, it is still well-handled. The best course of attack seems to be to drop a sacrifice parachute in Y40 and land two 4-4’s at V40 with the other 3 Allied units (including the Airborne) landing at U41 and U42. SAC attacks should be carried out against the 2nd Panzer and Brest.

If successful, the Allies will be safely ashore with plenty of supplies and can take Lorient at their leisure. It will then be a case of playing the attrition game in the Brest-St. Nazaire gap until the German decides to withdraw. However, the German forces in the West are so mobile that an orderly withdrawal to a strong position on the Seine can be carried out with little trouble either before or after the 2nd invasion. Should the SAC attack on Brest fail, the Allies will have a tough time of it and will have to expend another one immediately to gain the supply needed for quick build-up. Even so, Brittany remains the best invasion site—offering an almost guaranteed beachhead and the type of attrition game which the Allies excel in. Unfortunately, it will also result in a very long game in which the Allies will have to break a myriad of doubled positions manned by the cream of the German army.

**UP-TIGHT—BAY OF BISCAY:** The Allied chances here seem to be best with landings of all units on HH42 and using SAC against 1SS and 9PZ in Bordeaux. However, if they don’t kill the unit in Bordeaux they are in serious trouble, because they are already at their maximum supply capacity. The German will have made La Rochelle 3-1 proof, and the only way the Allies will go anywhere at all is with massive expenditures of their SAC attacks.

The should eventually enable them to move out from HH42 and H42, but after that it is a dim prospect. The Germans should hold them south of the Loire until the second invasion, and then with their beach defenses relaxed, the German should be able to form an incredible line on the Seine.

**HARD SMASH NORTH SEA:** This defense is vastly different from Roberts handling of the same situation but is every bit as effective. The beaches themselves are not
defended, enabling the Allies to land unopposed at H15, 116, and J17. Yet, this generosity is not as free of avarice as it looks. On the second turn the invaders are faced by doubled positions and although a 3-1 on the 276th can be achieved in co-operation with an earlier airborne operation against OBWest not much will be gained for the Allies will still only have supplies for 6 divisions. A more viable solution is to attempt a 1-1 surrounded on the 2nd Panzer with a 1-4 surrounded on the 27st and a 1-2 on the 272nd with an airborne delay unit at D8 and SAC attacks on the 2SS and 22SS. With great luck this could conceivably gain enough supply to result in a quick Allied victory, but the law of averages decrees that more often the Germans will come out on top, and very quickly too. Supply is just too hard to secure in the North Sea.

HARD SMASH PAS DE CALAIS: Again, the two defenses suffer drastically. In order to make his southern beaches impregnable the German has left the bare minimum of troops in Calais. Invasion here is a 50-50 proposition and undoubtedly the best Allied option against HARD SMASH. Taking the four northernmost of the five available 1-1's on the beaches and a 6-1 on the 6 HQ unit, the Allied player can be firmly established ashore and well on his way to victory with low die rolls. Failure means the game is over for all practical purposes, but there can be no holding back. The German has made your choice for you. Calais must be attacked! The 12SS and 9th Panzer appear the most likely SAC targets.

HARD SMASH LE HAVRE: HARD SMASH allows the 1-1 on Dieppe and Le Havre which UP TIGHT did not. As such, it is a much weaker defense, although the addition of the 6th Airborne regiment makes exploitation of the Allied airborne potential more difficult. Selection of Le Havre is a possibility but does not offer the same advantages of an attack at similar odds on PAS DE CALAIS.

Opportunities for SAC attack are particularly poor.

HARD SMASH NORMANDY: Again, the Siniaggo defense is inferior to the UP TIGHT placement, although still imposing. Not only are 1-1's possible against Caen and Bayeaux, but the paratrooper screen is weaker and Carentan is ripe for a SAC attack. Cherbourg is again left open so supply presents little problem. The best Allied invasion would probably consist of landings at Cherbourg and Q33 with a 1-1 on Caen. Coupled with a SAC attack on Carentan and Argentan, a 6-1 on the 1st HQ and a 1-3 on the 353rd in Avranches with the airborne units to maximize the delay of reinforcements from Brittany, the Allies could be firmly ashore providing they win the 1-1. It would then be a case of wait-and-see attrition until the 9th week and the 2nd invasion.

HARD SMASH BRITTANY: Here is where the set-up benefits from the sacrifice made to the Northeast. An additional 13 factors are made available for the defense of Brittany. The result is that every beach square is contested of landings at Cherbourg and Q33 with a 1-1 on Caen. Coupled with a SAC attack on Carentan and Argentan, a 6-1 on the 1st HQ and a 1-3 on the 353rd in Avranches with the airborne units to maximize the delay of reinforcements from Brittany, the Allies could be firmly ashore providing they win the 1-1. It would then be a case of wait-and-see attrition until the 9th week and the 2nd invasion.

HARD SMASH—BAY OF BISCAY: Once again, the German makes the obvious choice and makes a 1-1 attack. However, if successful his chances in this area are much better than against the Roberts defense. To begin with, a 1-1 surrounded is allowed against the stack at H42. If it, and the SAC attacks on Bordeaux and E42 are successful, there will be little to oppose an Allied buildup for at least 3 turns. If the SAC attack fails to gain Bordeaux's supply or the 1-1 fails the invasion is over. However, a large number of slow moving units placed on the Western beaches makes the prospect of an Allied breakout quite enticing. And if the 50% chance of failure should come up the Allies will have lost only 4 units rather than the 12 of an effort at Calais (including valuable armor and parachute units). With pre-invasion SAC attacks to soften up the now reinforced 2nd invasion sites, the game will still be far from over.

OVERVIEW

Heavy armor belongs on the beaches, either adjacent to where the Allies want to attack, or right in their way in the most desirable squares. They thus are invaluable to SAC and provide the strongest defense with the best chance to survive and be able to launch an immediate counterattack. Especially note the 6-6-4's in Dieppe. Besides being maximum economy of force (12 defense factors against a possible attack of 10 from Pas De Calais and 8 from Le Havre), with Q28 vacant three 6-6-4's are both doing double duty in tying themselves into the defense network of adjacent beaches. The 5-5's in Normandy in the Roberts defense are all maximum economy of force, equaling 10 defense factors defending against possible attacks of 8 and 16 factors. Placing the 7-7-4 in St. Malo with 3 units of 4 attack factors in range guarantees that the German can get 3-1 and a soak-off against two 4-4-4's if they land on V39 barring a SAC attack in this direction.

Certain units have squares that soon should become obvious as the optimum place for them. Thus the 5-5's in Normandy defending against combinations of 4-4-4's, the 6-6-4's in the Pas defending against the possible 5-5-4's, the 3-3-3 in K18 defending against 4-4-4's (instead of, say, in a paratroop screen in the rear where it would have no special merit against 3-3-3's), the 3-4-3's in paratroop screen positions on the northern positions which are hopefully so strong that he can't attack, and thus since he won't be there, you save the extra attack factor of the 4-4-3's to use in the south where you probably will want to attack. The choice of whether to place a 4-4-4 or 4-4-3 in the various Normandy-Biscay areas is far from random, but based on their ability to attack or occupy key squares after the most likely initial invasion positions are reached.

AN UNHAPPY COMPARISON

Which defense is better? I suppose that depends on what you want out of your defense. The Siniaggo set-up is designed to meet and defeat the Allies on the beaches. Any prolonged struggle, due to the heavy commitment on the Western beaches will increase the chances of an Allied win. Yet, the Allies have no better than a 50% chance of a successful landing anywhere on the board. It is a gambler's dream and should result in an even number of Allied and German wins. To go play with 11 players is not in your ability.

The Roberts defense adheres to the "fight'em on the beaches" principle while utilizing the containment theory for the westernmost beaches. An invasion at Brittany can not really be stopped, nor can one in Bay of Biscay barring unlucky SAC attacks. This results in a long, drawn-out game in which the Allies must break one strong doubled position after another before he reaches Germany and victory.

But any attempt at invasion further north is extremely risky. The strategic balance is better than in the Hard Smash defense, making a policy of containment more viable.

In short, the Roberts defense holds a better chance for a German win, but will require a much longer game, regardless of the winter. Both defenses hold at least a 50-50 chance of a German win.
A Compendium of Playing Aides

*Cast of Characters including: George Bradford, Don Greenwood, Richard Guida, Dan Hoffbauer, Richard Plock, James Pyle, Randall Reed, Tom Oleson, and Mark Saha

Wargaming is a time-consuming pursuit; especially if one exercises his involvement in it to the hilt. It’s one thing to play a 3-hour Midway game once a month and quite a different matter to be involved in a dozen play-by-mail games while playing regularly a gamut of games that may include as many as 20 titles. Taking 20 minutes to set up that Midway game may have been annoying for our once-a-month jock but it’s downright torture for the wargame "junkie." The GENERAL will try to solve this and other less pressing problems of the wargamer within the body of what follows. Not a regular feature, this article encompasses all that we have to offer on the subject of playing aids.

THE BOARD:
The bane of any PBM'er is the constant setting up and putting away of games after just one move. If you play-by-mail or lack a place to store games overnight that you can't finish in one sitting then a game cabinet is a must for you. A game cabinet allows you to leave up to a dozen games set-up permanently in the same space usually taken by one gameboard. In addition, the "drawers" on which the game is set up can be removed and used to carry the gameboard from room to room without disturbing a single piece. And when returned and secured in your game chest, the set-up is protected from the vicious raids of one's children, pets or wife.

A game cabinet lends a new outlook to your playing. Instead of forgetting all about a particular move after writing it up, you are tempted to pull it out and look over your move for fresh approaches every day. Such contemplation has made more than a few players "see the light" in a particular game and made better players of them. And of course, there are the obvious advantages. You no longer have to painstakingly reposition each unit every time you receive a move. You already have his last set-up before you. Moving units to their new location and checking the legality of the move becomes one in the same. The only drawback of the game cabinet is that most of them are designed to hold only the standard 28" X 22" mapboards. This presents difficulties when playing games such as Afrika Korps or Blitzkrieg which utilize the longer board. The problem is not insoluble however, and if you're willing to cut the boards in half along the center fold, even they can be laid into a standard sized cabinet with little difficulty. Of course, if you play more than one PBM contest of the same game at the same time or are inclined to play both face-to-face and by-mail the utility of a game cabinet might be lessened. The answer to this problem is, of course, the purchase of extra boards and counters for secondary games.

Game cabinets can be constructed in a variety of ways but generally speaking plywood is the least expensive material. The cabinet itself can be constructed from one 4 by 8 foot sheet of ½" plywood. Shelves can then be constructed from ½" sheets in the quantity required by the individual. The number of shelves usually ranges from 6 to 12. A project of this nature usually costs from $15.00 to $20.00 depending on the amount of shelves used and one's woodworking skills. It is a good idea to varnish the whole thing and to soap the strips of wood which provide the support for the drawers to prevent sticking.

GAME TRAYS:
A less expensive, albeit less refined, solution to the same problem is Tom Oleson's "game tray". Although less picturesque, a set of game trays can be made for about $4.00 and are not as subject to abnormal shaped boards as is the case.
RANDOM NUMBER GENERATORS

Although what follows may seem more suited for Popular Mechanics than the General, Dr. Plock has provided us with an amazingly detailed rundown on how the wargamer with a passing interest in electronics can apply his knowledge in a spartan construction endeavor to build an interesting playing aid to complement his gaming hobby. If you have the know-how to wade through the sea of jargon which follows, or know someone who does—you may well be on your way to processing your units on a new and improved, money-saving, unit counter base. Random game trays are designed for use with games using both one and two dice. In years gone by these unique gadgets were selling for $20 and up at wargaming conventions—when you had the good fortune of finding one at all.

RANDOMIZERS OR ELECTRONIC "DICE"

by Richard J. Plock

In order to eliminate the problems associated with rolling dice (disturbing pieces, "cooked" dice, biased dice, etc.) I have constructed two different styles of battery operated electronic randomizers. They both operate on the same fundamental principle. The circuits are designed to be 1 mini (one millionth second; for you non-technical types), with a pushbutton switch connecting it as a counting circuit. This counting circuit then displays the number of cycles (or time in microseconds) that the pushbutton has been depressed. Since people cannot control their reflexes to even a thousandth of a second, the number of cycles counted varies by a true random result. The circuits are designed to give true probabilities; there are no false counts or invalid states.

The randomizer consists of the counting circuit and the timer circuit, which together with the pushbutton switch make a complete cycle through the 36 possible configurations during the count. For games using only one die, the device can be made to suppress the readout of the one of the faces. The second device generates a true digital readout, with two alternative counts: a standard 1-6 count for those cases where a true die probability is desired, and a 5-9 count when an additional result is wanted (e.g., when using the pushbutton as a face-to-face play).

General Construction Information

These devices are on the order of the readily available and inexpensive TTL integrated circuits in the dual-in-line 14 and 16 pin packages, with the solid state light emitting diode (LED) readout. I have used particular items from Poly Products Co. (Box 942, South Lynnfield, Mass. 01960). I do not wish to imply that Poly Products is best or cheapest, merely that these items are available there if you have trouble finding them. The prices paid (Summer 1973) are given with each item; the latest prices and sources of supply can be found in the advertisements of any of the hobby electronics magazines (Popular Electronics, etc.). The other parts (beads, resistors, etc.) are available from any electronics supply store.

The particular construction shown utilizes printed circuit techniques. While it is possible (I suppose) to build them with conventional techniques and methods of enclosure, making it almost impossible to use a PC board, the leads on a DIP unit are in two equal rows. The pins are 1 1/16" apart; the rows are 3 3/16" apart. Holes of about .04" diameter are required. Should you not wish to drill holes, "P" pattern unclad and copper clad one or both sides perfboard is available. This pattern has holes punched in a "D1 grid", and has been specifically designed for IC mounting. You can either use a copper clad board, or use one of the copper tape techniques available—etching is quicker and easier. The patterns shown are for unpunched DIP units. The use of pre-punched boards or copper tape circuits will probably require more space, although a similar layout should be used.

If you have never handled IC's and decide before, be careful! Excessive heat when soldering, excessive mechanical force on the leads, and excessive voltage at the wrong lead can all irreversibly damage them. Once properly mounted they are quite shock resistant, but until then should be regarded as delicate. Use a low wattage, fine tipped, pencil type solder iron with a good grade of rosin core solder. It is a good idea to make a final check of the soldered circuit with a magnifying glass; the soldering is close and solder bridges are possible. If you prefer, you can use IC socket to avoid soldering the IC itself; they are rather bulky and will require larger boards. Where substitutions are feasible, this fact has been indicated. Otherwise, stick to the exact designations given. Many IC's have the same function but different pin numbers. Also note that in both cases alkaline batteries are specified. Rechargeable NiCd batteries are acceptable, but the current demands are too high. Lithium cells are not to be used. Larger cells (but NOT higher voltages) can be used. Under NO circumstances use a source over 6 volts; the IC's and LED's will burn out immediately.

One final note: DIP units are specified to operate at 5 volts. They will, however, perform satisfactorily from 4 1/2 to 6 volts. Below 4 1/2 volts they become erratic, but the displays will still light up. Check your batteries at the first sign of erratic behavior.

Die Face Randomizer

How It Works

This randomizer uses 14 LED's to simulate two dice faces, 7 for each face. The LED's used were the small M.V. 5080 units; they emit an intense red light. The heart of the unit is the SN 7404 divide by twelve IC. The leg diagram (Figure 1) shows the circuitry used. The numbers and designations of the IC's are the pin numbers; they are not shown in any particular order, just the most convenient one for my purposes. The isolated circles with letters correspond to the letters shown on the PC board. Note that some of the IC's are integrated circuits—there is only one 4044 unit (IC 1). Starting at the left, we have inverters 1 and 6 from IC 1 (SN 7404 hex inverter) driving an RC timing circuit. Inverters do just that—the output is high if the input is low, and vice versa. R1, R2, C1, and C2 have been chosen to produce about 1 MHz. This is a high frequency so that the resistor can be quite small. The voltage can be varied by increasing R1, or decreasing C2. The circuit produces square waves pulses at point A. Pressing the pushbutton (SI) feeds these pulses into the 7404 divide by six circuit. This may be accomplished by one of the methods described earlier, but it is built in two sections. One section is a divide by two counter (Input A, Output OA), the other a divide by six (Input B, Outputs OB, OC, OD, OE). When coupled, you have a divide by twelve. We only use the second part; the divide by six.

The sequence of the count is shown in Table 1. The count is made each time the input drops from high to low. The remainder of this section of the circuit drives this output into the dice spots (Table 1 includes this result also). The die spots are numbered 1, 2, 3 down the LHS, 4, 5, 6 down the RHS. In the center. The next item in order is the "OF" gate—there are four in the unit; the two are used for each IC, and the third is used to drive the LED's. Each IC has an output of 0 or 1, high, thus the unit shown has a high output of O8, O9, OR, OS or 0. The inverter has been described; there remains the quad 2-input NAND buffer. A NAND gate has a low output if all its inputs are high; but a high output if only one of its inputs are high. A buffer can maintain a low output state by absorbing current to a greater extent than a regular IC. They make good driver circuits as they are designed to hold high output when the input is low. The LED's and the LED buffer are low output. R1 through R6 to include both dice) are current limiting resistors—they are to prevent the LED's from burning out. The resistors are chosen unless its LED's chosen are different, then different values may be required. Larger and brighter LED's are available at greater expense, appropriate resistor substitution should be made. Special note: if you really want to spend the money, green or yellow LED's are now available—at 91.30 each.)

One last point: this is for single use only; there is a converter circuit, this is to drive the second counter IC 6, which operates in a similar fashion. Each time die 1 displays a 4, IC 5 increases its count by one. The result gives the 36 possible combinations of two dice. The LED's can be used to cut off the power to the LED's of the second die. There is no reason to confuse when only one die is used; however, the battery drain is less. The LED's display for the moment current demand of the unit; blanking one of them will extend battery life.

The next part of the sequence is results are obtained only after pressing the pushbutton; the output is NOT random when the unit is first turned on. My unit invariably displays a 4.

With the game tray system is that a secluded place away from other daily activity is needed to store them if they are not to be upset.

UNIT DIVIDERS:

One of the biggest drawbacks of Avalon Hill games is their lack of "compartments" to separate and store different types of unit counters to facilitate easy set-up. The plastic tray of the bookcase line and the cardboard containers in the flatbox variety just don't cut it in any way, shape or form. There are many viable solutions to the "compartmentalization" problem which vary sufficiently in expense and accessibility to meet every gamer's whim.

The main drawback to the game tray system is that a secluded place away from other daily activity is needed to store them if they are not to be upset.

The solutions vary from empty egg cartons, candy boxes, plastic ice-cube trays reusable plastic bags, and see the fishing tackle boxes to the ultimate carpenter's chest of drawers. The problem with the first 3 mentioned items is not only their untidy appearance, but the fact that counters are subject to loss during transit from one location to another. Their obvious advantage is that they're free and if the former plywood, of a thickness suitable to prevent flexing (4 1/2") to the size of the board in question with an extra 1/2" allotted around the perimeter. Then you take 4 strips of plywood 1 1/2" wide by 1" high, and nail or glue them to the bed area. Their length depends on the length/width of the game board plus the margin (4 1/2") to the sides. These raised strips around the sides make it possible to stack a number of games without disturbing the counters (nor will any but the top one get dusty). Not only is this handy to store games, but to move them as well, in case you need to change tables, etc. Although game trays won't tend to "stick" as they can in a poorly constructed game cabinet, they are subject to accidental ravages by passers-by.
I popular room penmeMs which is convenient to store and label. Probably cardboard separators which will ranging from under a dollar to several bucks, these "tackle" boxes are both pleasing to the eye, easily labeled, and secure against leakage.

The main disadvantage is that these boxes contain, on the average, only 16 separate storage compartment sizes depending on the priorities they can be a useful alternative. The objections don't stand high on your list of the storage chests can be a useful alternative. The main disadvantage is that these boxes would be needed. This drawer can be subdivided into compartments which are formed by dropping clear plastic dividers into precut slots. Depending on the counters to be sorted, each drawer can be subdivided into 1, 2, 3 or 4 compartments. Each 5 1/2" X 2 1/2" drawer offers a multitude of storage compartment sizes depending on the number of compartments to be used and the sizes desired. The really industrious can fashion cardboard separators which will easily wedge into position to further subdivide a drawer into as many as 12 compartments. When utilized in this fashion, a Unit Divider of this size can be used to store the counters of your entire game collection. Ours holds the units for 12 games, weighs 13 lbs., stands 22" tall, a foot across and 5/8" deep. When doctored up like this one has been it not only becomes a great aid to play, but the perfect bookend for your "bookcase" games or centerpiece for your mantel.

A deluxe 60 drawer chest containing 240 separate compartments. This one utilizes camouflaged game OR charts to give a truly professional appearance. Such extravagance is not necessary of course but does lend a very impressive appearance to the gamerroom of a dedicated wargamer.

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**THE GENERAL**

**CONSTRUCTION DETAILS**

The first step should be the preparation of the PC board. This board is 4" X 2 1/2" copper clad on both sides. I have supplied two sets of pushbutton (Figures 3A and 3B) that can be used as sockets for storing purposes. I have tried to make it easy for you to permit your use as templates, or you can draw your own using them for reference. The "TOP" shown on figure 3A means that this is the top side of the PC board, and all components will be mounted on this side. The letters appearing at some of the points on the board correspond to the parts list. The "BOTTOM" refers to the bottom side of the board. The small holes in the corners are for mounting the board on the cabinet or any convenient size will do. I used 1 1/2". The easy way is to drill the PC board and box cover together; then the holes are sure in register. The top side of the PC board will be facing the box cover. Instructions for the etching process itself come with the solutions—Radio Shack offers a complete kit.

Once you have the board etched and drilled, you can mount and solder the components. Figure 4 shows the location and orientation of each component mounted on the board; all are shown mounted on the top side. Notice that the positive side of the diodes D1 and D2 are towards the edge of the board. They are specified as 1N514, but any small switching diode will do. You will probably have to test them to find the positive side. If they pass current in both directions (or neither direction), they are defective. Do not solder both leads of the diode at the same time; after doing the first, let the diode cool before soldering the second. After R1, R2, D1, D2, C1 and C2 have been mounted and soldered, the capacitors C3 and C4 should be carefully folded down over the resistors and diodes so as to take up less space. Be sure of the orientation of your IC’s; Figure 5 gives the lead designation of a 14 pin “N” package IC, in case you get one that does not have a notched end. (The letter immediately after the unit specification number is the package style.) Be careful in mounting them, the leads (or pins) are held slightly sprung out to hold them in place. Again, do not solder all the leads of an IC at one time, give it a chance to cool. Remember, some of the leads must be mounted on the top side. The resistors R1-R10 are mounted parallel and adjacent; they should just barely fit. All components should be mounted as flat to the board as possible; the IC’s are designed to have a small gap beneath them.

The battery holder should be mounted in the bottom of the box. Note that the batteries are the main bulk. Using 4 Colls requires a box 6" X 2 1/2" X 2 1/2" (or 6 1/4 X 3 X 3 1/4") using D cells would require a larger box. The holder can be glued (in place) if using silicone Sealant, or holes drilled in the box to use small bolts. After it is mounted, the negative lead (black) should be soldered to point B on the PC board. Pass the wire through the hole from the top side to give a mechanically strong bond (do all such connections). At the bottom of the box which should be phenolic, do not use a box with an aluminum or other conductive cover; should be prepared for the components to be mounted there. The actual location and sizes of the holes will be determined by the requirements of the items used. The position of the pushbutton will probably need to be mounted. It should be centered near one end; make sure it is in such a position that it will not come in contact with other parts in the game. The holes will be predrilled and cut out (for the handle) will have to be taller—made. Toggle switches can be used instead if you prefer; they are easier to mount. Again, make sure you have clearance. For the LED’s, 1/10" diameter holes (NO LARGER) are needed. The positioning should be such that they are in line with the wiring and logic design. They also need connections to be made to the two other patterns, each with holes about 2" apart, as shown in Figure 6. Overall, they should be as opposite from the pushbutton. Insert the leads of the LED’s from the top side (the red leads in a long length and bent into place with a pliers. Make sure that the positive lead of each LED is positioned towards the end of the box—away from the pushbutton. See Figure 3 for the lead determination and double check before connecting. Use a 150 ohm resistor in series with a 6 volt source—if it lights you are OK; if not, try reversing it. If it does not light either way, it is defective.

The final connections can now be made. The pushbutton (SB1) is connected to the points A and A on the PC board, use wire of appropriate length. The leads of the slide switches (S2) is connected to the positive lead battery holder lead. The other side of this switch needs two wires; one goes to the other slide switch (S3) and the second to the points C and D on the PC board. Note that there is only one hole, C is on the top side, D on the bottom. The second side of S3 is connected to point 5 on the PC board. Using the most flexible hookup available were 28 lengths and solder one end of each in one of the 28 holes for the LED connections. Be sure the wires are not inserted from the top side of the board. Then carefully connect each wire to the appropriate LED lead. The LED’s should be hooked up over the leads of the lead. Be extremely careful to do this. The LED’s are extremely heat sensitive. After each connection is made, it is a good idea to coat the lead and soldered connection with an insulating material to avoid shorts.

After the last connections are finished, the PC board is bolted to the two with 4 40 round head machine screws and 1/4" spacers. This must be done carefully—this bundle of wires takes up room and is not very flexible. Mount the slide switches and pushbutton, but 4 batteries in the holder, screws on and put as should be lights in both displays. Press the button and all 7 LED’s in each display should come on. One switch cut off right hand display while the other cut off both hand. The patterns to appear when the button is released should be those appropriate to a die face.

The photograph shows the unit with both "dice" (at the top flap—A on die 1, A on die 2. The cover screws and PC board mounting screws are clearly visible, as is the pushbutton. The slide switches are virtually invisible (black on black) does not lead to good contrast, but the labels (ON in the lower left corner, a 1 and 2 in the right) show their location. An interior view of the unit is also shown.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Number Required</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC 1</td>
<td>7404 N Hex inverter</td>
<td>2</td>
<td>$3.20</td>
</tr>
<tr>
<td>IC 2, IC 3</td>
<td>7492 N Divide by Twelve</td>
<td>2</td>
<td>$2.70</td>
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<tr>
<td>IC 4</td>
<td>7432 N 2-input Positive OR Gate</td>
<td>1</td>
<td>$2.50</td>
</tr>
<tr>
<td>IC 4 C</td>
<td>7437 N Quad 2-input Positive</td>
<td>1</td>
<td>$2.50</td>
</tr>
<tr>
<td>L 1, L 4</td>
<td>.10µF 5000 Micro Mini LED</td>
<td>2</td>
<td>$1.00</td>
</tr>
<tr>
<td>D 1</td>
<td>0.01µF Disc Capacitor</td>
<td>1</td>
<td>$0.60</td>
</tr>
<tr>
<td>C 1, C 2</td>
<td>100 ohm ¼ watt Resistor</td>
<td>1</td>
<td>$0.20</td>
</tr>
<tr>
<td>R 3</td>
<td>100k ¼ watt Resistor</td>
<td>1</td>
<td>$0.20</td>
</tr>
<tr>
<td>S 1</td>
<td>10M SPST Miniature Pushbutton Switch NO</td>
<td>1</td>
<td>$0.20</td>
</tr>
<tr>
<td>S 2, S 3</td>
<td>3A 5.25V ungrounded</td>
<td>1</td>
<td>$0.20</td>
</tr>
<tr>
<td>B1</td>
<td>5Volt alkaline “C” Cell (4 in series)</td>
<td>4</td>
<td>$2.50</td>
</tr>
<tr>
<td>Plastic Battery Holder</td>
<td>4 &quot;C&quot; Cells</td>
<td>1</td>
<td>$0.80</td>
</tr>
<tr>
<td>Phenolic Chasis Box</td>
<td>1</td>
<td>$1.60</td>
<td></td>
</tr>
<tr>
<td>PC Board Copper Clad Both Sides</td>
<td>1</td>
<td>$0.80</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Hardware, Wire, etc.</td>
<td>1</td>
<td>$0.80</td>
<td></td>
</tr>
</tbody>
</table>

Total cost of parts (less taxes, shipping, etc.) $18.00.


**THE GENERAL**

**Location and orientation of components on PCB board**

The LED's are not mounted directly on the PCB board, but are connected to the pairs of holes in the positions shown below and are all oriented as shown at the right.

---

**THE DIGITAL RANDOMIZER**

**How It Works**

This unit makes use of the MAN 4 seven-segment LED readout display to show a digital readout of 0 to 9 inclusive, the operational heart of the SN 7440 decade counter. As in the case of randomizer #1, I have supplied a logic diagram (Figure 7) and a wiring diagram (Figure B). Read the section "How it works" under Randomizer #1 before continuing, many of the points discussed there apply in this case also, and are not repeated.

As you can see, a pair of inverters from IC 1 (SN 7440) are coupled to an RC circuit to produce three waves of about 1 MHz at point A; these pulses are fed into input 4 of the decade counter IC 2 (SN 7440), when the pushbutton 1 is pressed. Again, the counters built in two sections; this unit uses both by connecting the output QA is input B. The result is a binary-coded decimal output at the four terminals QA, QC, QD, and QG. When the 4PDT switch 2 is in position 1, all of the outputs of IC 2 are connected directly to the corresponding inputs of IC 3 (SN 7448 BCD-to-7-segment decoder/driver), giving a true decimal count, while at the same time segments A and B of the switch grant seven reset terminals of IC 2. (Special note: If all of the switches are in the decimal count, switch IC 1 and IC 4 are unnecessary. Simply make direct connections between the outputs of IC 2 and the inputs of IC 3, and permanently ground the base terminals of IC 3. The SN 7448 is specifically designed for the purpose of driving 7-segment displays of the MAN-4 type—there are seven output terminals, one for each segment. Note that this IC has 6 pins; the numbering system is analogous to that for a 14-pin unbuffered IC. While the SN 7448 is capable of driving the display by itself in this instance, when the outputs are high, a brighter light and greater contrast can be obtained with the use of the resistors R3--R8 connected to the power source. DO NOT change their values, as before, they are used to limit current and prevent the display from being overloaded.

When switch 2 is in position 2, the displayed count goes from 1--6. The trip point is observed at the reset to zero pin 2 of IC 2 and IC 3 are no longer automatically gated, but are instead connected to the outputs QB and QC. These reset inputs function in such a way that when either is grounded (or low), the unit counts in a normal fashion. When both simultaneously receive a high pulse, it resets the count to zero. (If you do your own design, be careful. There is another pair of reset pins—reset to nine. These must be permanently grounded.) Thus, when QG and QC are both high for the first time in the count sequence (a BCD 64, the counter returns to zero. Since the time required is much less than the time between counting pulses, the counts go from 0--8 without overlap or false probabilities. In order to make this a 1-6 readout, the B and G inputs of IC 3 are connected to the outputs of IC 4 (SN 7432 2-in-7 debuffer), and the operation of the logic will show that these will energize both outputs QB and QC of IC 2 except when all three outputs QG, QD, and QC are low (a BCD zero). Since both B and C inputs of IC 3 are made high, giving IC 3 a 16, the count of zero yields a display of six while all other counts yield a true display.

As in the case with randomizer #1, the output will be reset only after pushbutton 5 is pressed.

**Construction Details**

This will describe how to build a unit essentially identical to my prototype; however, let me urge you now that you make one change if you value your sanity, and unless you are very adept at working in small spaces, do not use the same size box (6" x 11½") that I used. The components just barely squeeze inside after some careful cuts have been made. Unless you are as stubborn as I am, I recommend a minimum of 6½" x 2½" x 2½" preferably with a plastic cover; learn by my experience.

All of the construction warnings and recommendations given for randomizer #1 apply here except for those associated with the individual LED's and button on both sides of the board. The printed circuit board is 3¼" x 1⅛", copper clad on one side. Figure B shows the etching and drilling pattern (bottom view). The rather odd shape is necessary to provide clearance for the box reinforcing structures, etc. (see photograph). The two large holes are mounting holes—all hole sizes are the same for unit 1. Figure 10 shows the location and orientation of the various components, all mounted on the top of the board. The position of each diode is the center of the board (IC 2). The MAN-4 display is not mounted directly on the board; a 14 pin socket is used. This leaves the display in a more easily workable while allowing clearance for the box and IC's between the board and case. Note the orientation of the insertion of the MAN-4 in the socket—pins #3, #5, #10, and #11 are missing (but the layout is still numbered). Pins 1--7 should be on the side with the 4 resistors, B:14 on the side with 3 resistors. Again, the two diodes should be carefully folded down to take up less space. Note especially the jumper wire next to IC 3 (SN 7448).

The battery holder is not mounted permanently in the case; it must be removable to get all four batteries. Depending on the type, it may have leads of its own, or a battery clip may be required. The negative lead (black) is soldered to point B on the PCB board, the positive (red) to one side of the switch SB. The other side of SB is connected to point B. The short cutout in the PCB board next to IC 1 to provide clearance for this switch. The 4PDT switch SB is connected as follows: A-center lead to point K, terminal 1 to point B, terminal 2 to point P, section A—center to point L, terminal 1 to terminal 2 of section A, terminal 1 to point P, section B—center to point M, terminal 1 to terminal 2 of section B, terminal 1 to point P, section D—center to point J, terminal 1 to point N, and terminal 2 of section D, terminal 1 to point P. Note that these terminals and sections are not necessarily numbered, you have to cut your own. The cutout next to the diode #1 is to accommodate this switch. Note that these cutouts are tailored to the switches available to me and the box I used. As before, one side of the pushbutton is connected to A, the other side to A.

Panzerblitz is probably the game in most need of a compartmental sorting system. Sorting should be done by type to facilitate set up for the game's many scenarios. Note that the drawers are broken into five categories: transport, armor, specialized armor, artillery, and infantry. Each interior compartment is likewise labeled to its exact contents.

Be selective as to which games you want included in your "Unit Chest." Some games, such as Gettysburg, D-Day, Stalingrad, Kriegspiel and the "peace games" do not really require compartmentalization. In fact, it actually increases set-up time of which games such as D-Day. Remember, units which are taken from a compartment have to be returned eventually. In most games, this is merely a matter of dropping the eliminated units into the proper compartments each turn. In D-Day where there is no set OB historical unit designations, returning the right amount of units to the right compartment can be a real problem because there is nothing to cross reference each unit with as you return it to the box unless you sort it by type rather than time, which is little help to the Allied player.

---

Not all counters should be classified by type. In many games, such as MIDWAY, grouping of counters by the times when they appear on the board is preferable. In this example, both battle and search board counters are grouped in the same compartment—classified by the times they appear in the game. Note that the outside label describes what is to be found in the compartments in the drawer, while each compartment is also labeled as to its contents.

Games such as 1914, Jutland, Panzerblitz, Luftwaffe, Origins, and Richthofen's War
should be sorted entirely by type. Components for Gettysburg, Guadalcanal, Anzio, Waterloo, Afrika Korps, and Bulge should be divided by the times and areas in which they enter play. Sailingrad, Midway and France '40 require a blending of the two systems. The drawback of this system is of course the initial expense, in terms of both time and money plus the fact that it is not convenient for traveling.

CARDBOARD DIVIDERS:
A cheaper, and in some ways more convenient, system is available for the flat box games. These games, until recent production cutbacks, came equipped with two counter trays measuring 10″ long by 2½″ wide. Because there are no compartments contained within the trays, they are useful only to separate one side’s pieces from the other. However, 2″ × ½″ strips of cardboard can be inserted easily into place so as to form individual compartments. Once in place, the strips can be stapled or glued for permanent support. Each compartment can be as long or short as necessary, subject only to the length of the tray and number of compartments sought. If additional compartments are desired further cardboard strips can be glued in place lengthwise to subdivide the original compartments. Once placed in the trays, the weight of the mapboard placed overhead will prevent counter leakage if not jostled to excess.

THE GENERAL
In preparing the case, let me reiterate my warning about the difficulty of using the size I did. The mounting holes and slots for the components will depend upon the specific items used, in my unit they are in the bottom of the case, not the aluminum lid. The pushbutton mounting holes are centered at one end and near the edge as possible, barely clearing the PC board. At the other end, add a 3″ long and 3″ wide cutout to accommodate the MAN-4 display. This slot is in line with the pushbutton mounting hole and comes to within 1.25″ of the end. On each side, 26″ from this end and as near the side of the box as possible, 1.25″ holes are drilled for mounting the PC board. Now comes the tricky part—most of these boxes have their corners blocked by molded reinforcing or regions to receive the corner screws. This must have a cutout made above from the bottom of the box at the end by the MAN-4 slot; this is needed to allow room for the corners of the PC board. The entire molding cannot be removed in order to brace the PC board and to mount the lid. I can say that is it a cut and fit approach. They must be cut out enough to allow the top of the slot to reach the inner surface of the bottom of the box (or "top" of the unit) when the PC board is mounted. None of this is required with a larger box with a phenolic lid mounted everywhere on the lid leaving clearance for these reinforcements.

After finishing all the wiring and cutting of the box, the works are mounted. In my unit, you cannot mount one thing at a time; everything must be worked into position simultaneously and carefully. In fact, my 4PDT switch is not really mounted; the fit is so tight I simply wedged it in place (NOT a recommended procedure). The board is held in place with 4–40 machine screws; the sides with the components is against the surface of the box. If possible, 1/8″ spacers should be used; if they are not used the screws should not be tightened excessively. If care is used, the MAN-4 readout can be inserted and removed via the slot; its surface should be flush with or slightly above the outside of the case. Put the batteries in the holder, screw on the lid (which just makes it), and try it out. Turning on switch S3 should light up the display with either a 0 or 6, depending on the setting of S3. Pressing the button should light all segments (an 8). With switch S3 in position 1, any number from 0–9 should appear when the button is released. In position 2, only 1 and 7 should appear.

Photographs of the unit in operation (showing a 4) and of the interior are shown. It may be noticed that the PC board is a punched one, however the pattern (Figure 9) is for an unpunched board which I recommend.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Number Required</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC 1</td>
<td>SN 7404 N Hex Inverter</td>
<td>1</td>
<td>.35</td>
</tr>
<tr>
<td>IC 2</td>
<td>SN 7400 N Decade Counter</td>
<td>1</td>
<td>1.30</td>
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<tr>
<td>IC 3</td>
<td>SN 7483 N BCD-7-segment Decoder/Driver</td>
<td>1</td>
<td>1.90</td>
</tr>
<tr>
<td>IC 4</td>
<td>SN 7432 N Dual 2-input Positive OR Gate</td>
<td>1</td>
<td>.35</td>
</tr>
<tr>
<td>MAN-4</td>
<td>MAN-4 7-segment Alpha-numeric LED Display</td>
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<td>4.00</td>
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<td>D1, D2</td>
<td>1N414 Switching Diode</td>
<td>2</td>
<td>.20</td>
</tr>
<tr>
<td>C1, C2</td>
<td>0.01 F Disc Capacitor</td>
<td>2</td>
<td>.30</td>
</tr>
<tr>
<td>R1, R2</td>
<td>100 ohm 1/4 watt Resistor</td>
<td>2</td>
<td>.30</td>
</tr>
<tr>
<td>R3, R9</td>
<td>560 ohm 1/8 watt Resistor</td>
<td>1</td>
<td>.05</td>
</tr>
<tr>
<td>S1</td>
<td>SPDT Miniature Pushbutton Switch NO</td>
<td>1</td>
<td>.25</td>
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<tr>
<td>S2</td>
<td>SPDT Miniature Slide Switch</td>
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<td>SPDT Slide Switch</td>
<td>1</td>
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<td>1/2 volt Alkaline &quot;AA&quot; Cell (4 in series)</td>
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<td>1.85</td>
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<tr>
<td>S1</td>
<td>14-pin Integrated Circuit Socket</td>
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<td>.50</td>
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<tr>
<td>S2</td>
<td>Plastic Battery Holder—4 &quot;AA&quot; Cells</td>
<td>1</td>
<td>.60</td>
</tr>
<tr>
<td>R1</td>
<td>Phenolic Crossing Box (Aluminum Lid)</td>
<td>1</td>
<td>1.20</td>
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<tr>
<td>S3</td>
<td>4″ × 2.24 × 1.16&quot;</td>
<td>1</td>
<td>.50</td>
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<tr>
<td>S4</td>
<td>PC Board Copper G stud One Side</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>S5</td>
<td>3/16 × 1/16&quot;</td>
<td>1</td>
<td>.50</td>
</tr>
<tr>
<td>S6</td>
<td>Miscellaneous Hardware, etc.</td>
<td></td>
<td>.50</td>
</tr>
</tbody>
</table>

Total cost (less taxes, shipping, etc.) $18.50

Every gamer can ease his unit counter storage problem by creating separators within the cardboard trays found in the flat box games such as has been done above for Afrika Korps. The weight of the board atop the trays serves to keep the units in place.

PBM HINTS:
Ever been placed in the embarrassing situation of your PBM opponent finding you guilty of moving a piece too far and sending your move back for revision? Of course, it probably wasn’t intentional but rather was a result of moving a piece legally, leaving it to pay attention to another sector, and then returning to that area and moving again. Chances are you have probably been guilty of this in your face-to-face games as well, but your opponent couldn’t prove it and so it went unnoticed. It happens, but it doesn’t have to. Merely get into the habit of rotating your counter facing after every move. That is, always have your units facing in the same direction. Whenever you move a piece rotate it 180° to indicate that it has moved. By the time you have finished your move all pieces should once again be facing in the same direction. In this way you can always tell at a glance which units have and haven’t moved.

Those who do not have regular access to a paper with sales-in-hundreds listings for PBM use and don’t wish to involve a third party necessary for use of the ICIRK system are not totally without hope. Such people can get along
THE GENERAL

quite nicely on just one paper per opponent. The trick is to “anchor” the CTD being used by giving 4 stocks and their sales-in-hundreds results to your opponent while he does the same for you with a paper of his choosing. As a stock is used it is underlined on both player’s papers so that the attacker can not use the stock again. At the end of the game both players exchange the CTD listings they used to verify the results they listed for their opponents attacks. This system is not foolproof—an unscrupulous person could find the CTD list you’re using if he tried hard enough, but it is doubtful whether anyone would sink that low in a friendly game.

In large metropolitan areas (or anyplace where opponents live within local calling distance) where many wargamers live within close proximity to each other, PBM can be outmoded with the exception of determining results. Here, the attacker calls out a number from 1 to 20 and the words top or bottom. The defender then refers to the proper page in the phone book and looks up or down the right hand column the proper number of entries. The last digit in the phone number thus located is used to resolve the attack. That name is now checked off and can not be used for future attacks. The process is repeated for subsequent attacks.

The defender then immediately responds with a number from 1 to 20 and the words top or bottom. The defender then refers to the proper page in the phone book and looks up or down the right hand column the proper number of entries. The last digit in the phone number thus located is used to resolve the attack. That name is now checked off and can not be used for future attacks. The process is repeated for subsequent attacks.

PBM HINTS:
PBM gamers often go cross-eyed recording the grid-co-ordinates of all their units for every move. This problem has been rectified somewhat by games such as Prance '40 which print the co-ordinates on every square on that hex. You can do this in the older style games by writing in the co-ordinates for every game. Granted, unless you are very artistically inclined it tends to mess up your board.

An alternative is to use colored pencils to lightly shade alternate diagonal rows. Most errors in grid recording are made on the diagonal rows and distinguishing them from their neighbors in this manner usually cuts down mistakes of this nature 90%.

Give your opponent a break when it comes to selecting stocks for CTD's. Choose them from one section of the paper close to the date so that he doesn't have to clip out the whole paper and stuff it in an envelope. Don't use preferred stocks or those which regularly sell under 20 shares daily. And surprising as it may seem to many—you may use Saturday CTD's by specifying that your opponent look up the weekly stock results which appear in most Sunday papers. However, when using this option your letter must be postmarked by the previous Thursday.

And for those of you to whom the stock exchange is all that's evil in the world, there is always the ICRK system. This is a computer printout of random numbers. Both players are provided with a different one and a copy of each is kept by a neutral third party to verify the results after the fact. For further info on this promising system we suggest you write the SICL, 5820 John Avenue, Long Beach, California 90805.

TIME:
“Methinks he doth taketh too long” is a line from an old English play which fits well into our hobby. Everyone has had the misfortune of playing someone who takes longer to make a move than Grant did to fight the Wilderness Campaign. Quick response moves such as Football Strategy and Richthofen's War can be easily controlled with a stop watch or any clock with a second hand. This is not the answer for more sophisticated games with a greater number of variables each turn however.

Chess clocks are used to measure the time each side separately takes for his moves. In chess, a typical procedure is to allow 2 hours (per person) to make a grand total of 40 moves. If your flag falls before the 40 are made, you lose. You thus allocate your time as you please. For wargamers, two ways are feasible: for short games (e.g., Panzerblitz) decide how much time is to be spent, divide it (allowing for different numbers of units if necessary) and set the clocks appropriately. Say one hour each. If your flag falls before the last move is made, you lose. (Note the flag will fall each hour—for longer games merely reset the clock accordingly).

THE DICE:
Dice (speckled cubes, messengers of fate or any of a dozen less fitting names) have been damned and praised by gamers ever since man made his first wager. Yet no matter how much we condemn them game designers always resort to them almost without exception.

Whatever your feelings on the relative merits of luck versus skill in wargames, dice are unavoidable if you follow the wargaming persuasion. However, substitutes can be found.

One of the simplest and least expensive is the Automatic Comput-A-Dice device carried by Radio Shack and selling for $2.95. By pressing a plastic lever, two wheels start to roll. They stop automatically and light up a pair of dice faces on the TV-type window. The device operates on 2 “AA” penlight cells.

A host of other die-rolling gadgets can be found in gift and stationery shops. They range from a miniature revolving gambling cage to a
The General

Reader Buyer's Guide

Title: Gettysburg
Divisonal Level Civil War Battle

Instructions: Rate all categories by placing a number ranging from 1 through 9 in the appropriate spaces to the right (1 equating excellent; 5-average; and 9-terrible). Exception: Rate item No. 10 in terms of minutes necessary to play game as recorded in 10-minute increments. Example: If you've found that it takes two and a half hours to play France 1940, you would give it a game length rating of "15." Participate in these reviews only if you are familiar with the game in question.

1. Physical Quality
2. Mapboard
3. Components
4. Ease of Understanding
5. Completeness of Rules
6. Play Balance
7. Realism
8. Excitement Level
9. Overall Value
10. Game Length

The review sheet may be cut out, photocopied, or merely drawn on a separate sheet of paper. Mail it to our 4517 Harford Road address with your contest entry or opponents wanted ad. Mark such correspondence to the attention of the R & D Department.

Game to be reviewed next:

Opponents Wanted

We're experiencing growing pains. More subscribers means more Want Ads. We just don't have the space for every subscriber to wax rhapsodical as in the past. To make it easier, and more meaningful for all concerned, we introduce the Mini-ad...

1) Print your city and state in Box A above.
2) Insert copy where required on lines provided.
3) Print your name and address where indicated.

Want-ads will be accepted only when printed on this form.

NAME (in all caps)
STREET
CITY STATE ZIP

Contest No. 60

This issue's contest confronts the American player in D-DAY with a difficult choice: which invasion beach is weaker? Contestants are required to indicate their choice of beaches, either Normandy or LeHavre, in the boxes provided and show their attacks on the diagram. Important: indicate attacks and the attack odds (neatly) on the diagram. The objective of the contest is to pick the weakest beach defense, and initiate the best attack against that beach. Contest entry deadline is June 30, 1974.

Issue as a whole: (Rate from 1 to 10, with 1 equating excellent, 10 terrible)
small catapult which shakes miniature dice and "throws" them onto a felt playing surface. Both are competitively priced in the $4-$7 range.

Other, much more sophisticated systems, are described at length in module form on these pages. Why bother you ask? Only to point out the unusual and innovative in most cases. However, there are exceptions. Most dice, unless they are specially made for gambling casinos, are "loaded" in a sense. Adjustments usually are not made for "carving" the pips in each die face. Thus, the "1" die face is heavier than the "6" with the result that when the other demands of physics are paid, the "1" die face is more likely to be on the bottom than the 6, thus exposing a 6 result. Taking such minute variations a step further we find individuals who can actually control the roll of a die. In most cases this is the result of not giving the die a true "roll"—but rather dropping or spinning it from a set height with a certain number facing up. Someone who does this consistently should be made to throw the die against the box so that it rebounds freely. The numerous mechanical gadgets described elsewhere in this article are free of any such underhanded possibilities.

FAVORITE GAME FETISHES:
Everybody has their favorite game which they play more than any other and take pride in having "the best set" available whether it be a hand-carved ivory chess set or a solid mahogany Monopoly game with real money! This desire to have the ultimate in physical quality is not strange to wargamers either and there are many things the gamer can do to improve on his favorite game—if only to mount the CRT or frame it.

Like unit divider schemes these special tricks can run the gamut from the very expensive electronic gizmos to hand made knick-knacks. It would be impossible to list all the possibilities that exist but we'll cite a few of the examples we've seen in recent weeks.

Owners of Vol. 9, No. 3 of the GENERAL (now out of print) will remember Mr. Rick Miller of Mansfield, Ohio who made a set of glass enclosed Blitzkrieg coffee tables with drawers especially toiled to hold the unit counters which he mounted on wooden cubes topped by miniature figurines. A much less expensive proposition is Mark Saha's "carrier deck screens" which can be made from index cards and serve to keep the enemy from knowing your plane dispositions. Randy Reed's Peg Board Recorder for all the planes and pilots available in the Campaign Game of Richthofen's War is not such a matter of expense as it is of availability. The peg board and pegs were cannibalized from old Choice sets (an Avalon Hill title better forgotten), and the rest was merely a matter of judicious cutting of spare RW pieces and a bit of press type.

Perhaps the most practical extravaganza we've yet to see is the 3 dimensional Panzerblitz board which does away with many of the LOS difficulties at a glance. Such a board should have 4 different levels (although the one pictured here has only 3—slopes being treated as normal terrain); one each for gullies, normal terrain, slopes and hilltops. To make such a board one needs the normal Panzerblitz board plus three unmounted mapsheets. The original mapboard makes up the gully level. Over this
THE COMPUTER AND WARGAMING

by Richard Guida

This is a brief discussion of the possible roles the digital computer may play in Avalon Hill style wargaming. The intent of this article is to outline these roles, and discuss one example of them.

In Avalon Hill wargames, most of the "log" of war is neatly quantized: unit strength, movement, terrain characteristics and how they affect movement and combat. Such a war simulation system should lend itself to attack by a computer. Possible computer uses may be broken into two categories: direct computer command and coordination of the combat, economic or political forces involved, or human command with computer assistance of these forces. This article will restrict itself to consideration of combat forces only, although logical extension to political and economic activities should not be difficult to envision.

For the first category, it is safe to say that wargamers need not worry about having their skills mastered by a computer. It is instructive here to consider the game of chess, and how the computer is used to act as a "human" opponent. Various programs have been developed in the last ten years to contemplate the complex moves required to engage most human opponents and win regularly. The quality of play is still perhaps an order of magnitude behind that of Bobby Fischer, however. The computer approaches the game of chess in much the same way a human does. In any turn, the computer considers all reasonable moves, and selects the best move from them. The selection process might take the men's time, and it is not considered a direct threat to the control of the board, protection of a friendly piece, attack on an enemy piece, etc. -- or the move's derelictions. Generally, a computer can determine if its move will have immediate catastrophic or detrimental results. This is called one turn look-ahead. To practice two turn look-ahead, the computer must then hypothesize its next turn's move, as well as its opponent's response. Naturally, the further ahead the computer is able to look, the better it is able to foresee future catastrophic or winning results for its present move. However, the further ahead the computer effort must expend evaluating the increased number of possible consequences. In fact, the additional computational time required increases approximately exponentially with each additional turn of look-ahead. With present technology, this makes it impossible to accomplish more than about a two turn look-ahead (in most instances) for any one move.

The disadvantages between chess and Avalon Hill wargames will now be mentioned. First, the number of possible moves for a unit counter is perhaps an average of twenty times as for any chess piece, depending on the circumstances and game. Second, one side's turn in chess consists of moving a single piece, whereas as many as a hundred counters may have to be moved in a wargame turn. Third, all moves of the counters must be coordinated (although) expense not incurred in the chess turn. Finally, conflict of interest is such that the computer can determine its moves, but it cannot determine its opponent's moves, and vice versa. By chance in wargames, introducing a variable which virtually destroys any hope for an effective look-ahead scheme due to the vast number of variables and uncertainties introduced. All of these factors lead to the conclusion that the generation of an effective wargame-playing computer program is at present impossible.

Even in chess, the machine is still no match for the human brain. One of the basic reasons for this is that the computer can make local tactically sound moves, but it has difficulty in planning an entire offensive or defensive operation, and making each individual tactically sound move fit into an overall plan of operation. This is the very property that gives human wargame player protection in this area. It is presently impossible to program into a machine the capacity to exercise strategic thought, precisely because strategic thought is such an amorphous quantity to define.

Turning now to using a computer to assist a human player (or players), two basic uses can be identified: the "bookkeeping" role, and the tactical movement and battle appraisal role. The first is somewhat self explanatory, but offers many interesting possibilities. A computer can be used as an unerring mediator in simultaneous movement games, although the programming effort involved may be significant. Or it can be used as just a data storage and retrieval system, to assist a commander in evaluating his own or his opponent's material state. The more "top piggy" of the computer is in the appraisal or evaluation of a human commander's action. Accepting the fact that a computer cannot make strategic or even tactical decisions in a wargame due to the large number of variables and uncertainties, the proper role for the computer should be to assist any computer or computer program in determining what his best tactical action and deployment may be. For example, the computer can provide the German initial turn defense of a beach in D-Day, for instance Pas De Calais. The German commander could use a computer program specifically for the task of beach defense evaluation. Thus, once he has selected and positioned his Pas De Calais defenses, he can request the computer to give him such information as: maximum odds the Allies can obtain against each beach and inland square, probability of capturing one or more fortresses or cities, most probable effects of Allied SAC attacks, and most probable German and Allied losses and positions after the first turn of the assault. These are all things for which a computer can easily be programmed to give the answers, and will require relatively little computational effort. It can be argued that this program will make the general's assistance is not needed, that the German commander should be able to do these evaluations by himself. Considering that there are seven beaches, and all the German and Allied losses are known after the first turn of the assault, it is evident that the computational effort involved is not involved. By programming a computer to do the "nitty gritty" evaluation work, the German commander ensures that the precalculated errors are made, and that he will have more time to apply to the problems of overall strategy and coordination.

It is difficult to address in general terms many of the concepts this article attempts to present. The best way to grasp these concepts is to actually (personally) go to a computer and try to "interface" it to a H. Wargames. Of course, most universities do not have a computer or the training to use one. Many universities do have wargaming clubs and computers available for use by their members, however, so it is hoped that these comments may be of some use to the members of these clubs, and of some interest to the general wargamer.
The unmounted mapsheets are almost impossible to come by. However, if we've whetted your appetite unfairly in this article we'll provide the answer. For the next month only, we'll honor requests for unmounted Panzerblitz mapsheets for $3.00 a set. Remember, it will take at least 2 sets, and preferably 3 to construct your board. If interested, make your check payable to Avalon Hill Company and mark it to the attention of Donald Greenwood.

MOOD MUSIC:

Yes, even music comes under the heading of "playing aids." Although this isn't exactly the type of thing that turns us on, we've met individuals who claim they just don't feel right playing a wargame without appropriate martial music in the background. Far be it from us to knock others so we thought we'd tell you about two such records available from OAKLEAF VENTURES at their Box 286, East Orange, NJ 07019 address. Their two offerings in the field are, quite predictably titled, LUFTWAFFE and WEHRMACHT. Both sell for $5.95 postpaid and are quality 33 1/3 RPM albums containing famous songs, victories marches, speeches and radio commentary on the Third Reich. Of course this company is not alone in the field but merely one organization whose product we've heard and can recommend. Each to their own.

MORE:

Naval nuts will love the electronic search boards of Kurt Nordquest (Jutland) and Richard Plock (Midway) which enables players to search for their adversaries without giving away their own position. Such devices are expensive and require a great amount of skill to construct. For lack of space we fail to comment further on them here but if sufficient interest is shown by the readership we will present them extensively in later editions.

MISCELLANEOUS:

Simple adjustments to unit counters themselves can also be an aid to play. Color coding the sides of units in games such as Blitzkrieg and Waterloo does much to avoid the constant sorting through stacks of units to determine their make-up and strength. For example: in Waterloo a red side could denote a 4 factor unit; blue—a 3 factor unit; green—two factors. Thus, the PAA player could tell at a glance that a stack showing 2 green sides, 1 blue side, and one red side consists of factors without having to actually handle the stack and risk knocking over its neighbor.

The Competition Viewpoint

by Dan Hoffbauer

In the typical Avalon Hill battle game, the time required to play a complete match is 2-5 hours. Most AH gamers will scoff at this, claiming that it is not possible to play a full game of Bulge, say, in 4 hours. There is a very legitimate basis for this complaint upon examination of the normal AH player's gaming habits.

The average move in the middle of a Bulge game will take between 15 and 45 minutes per side. This time is taken up in making a decision on where each unit should move, on retracing the moves some units have taken when the player changes his mind, on rules arguments, and on combat resolution.

There is a way to beat this snail's pace. Place a time limit on each move. This can be very simply done with the additions of a few simple rules of conduct.

First, place a limit on movement time. This can be done, either with a limit on each individual move, or a limit on the entire game. In the first instance, the normal procedure is to use a stop watch or a watch with a second hand on it. The player not moving keeps the time and gives the other player a 30-second warning when time is running out. In the latter method, a chess clock must be used, with the moving player taking up as much or as little time as he desires. However, once the total time runs out, that player cannot move again.

For either method, the time limits do not include resolution of combat. However, a player cannot take more than 15 seconds to declare the units and the odds for each particular battle. Once the die is rolled, the defender is given only three seconds per square to retreat or advance any units, as is the attacker.

The most important stipulation in movement by time limit is the "touch" movement system. Simply put, you cannot move a unit again once you have touched it and then touched another unit. If you want to remove a unit, it must be done before moving any other unit and it must be within that unit's movement capability to retrace its step. You cannot "call a move back" under this system. This requirement alone forces the player into making decisions under pressure. Incredible blunders are made possible which are not possible under so-called "normal" playing conditions.

For instance, if a player does not allocate his time carefully during a move, many units will remain where they are. I have seen spectacular breakthroughs remain unexploited because the player did not allow enough time to move his most important units. Gaps open in the front, through which a quick player will be able to penetrate and turn a game completely around.

It is not possible to be a "computer gamer" when using a time limit. Those players who, given enough time, can make the perfect move, with each factor used to maximum extent, will be unable to exist in an atmosphere of fly-by-your-pants and snap decisions based upon quickly grasping the essentials of the situation. The superior tactician can usually prevail in a pressure situation. The so-called "idiot factor" can be brought into games without the use of an artificial rule. The better player will be able to make less mistakes. It is often the opinion of wargamers that nothing less than perfection will do in a move. Under a time-limit system, perfection is well-nigh impossible. The side with the fewer and the less serious mistakes will win.

This requires concentration, perception, and an ordering of priorities to make sure that the essential moves are made. Planning in advance is also necessary once you do not have the time to think about your moves when it is your turn. You must already know where you want to go and what you want to do before you do it.

Otherwise you'll end up with half your pieces touched.

In tournament play, as run by Spartan International, time limits under either method are used. Tournament umpires are present to provide rules interpretation services in the case of the various tournaments, or to actively supervise, keep time, figure odds, roll the die, and handle all functions which do not require the decision of one of the players. This "formal" approach is very effective in keeping games moving and in equalizing players who do not know each other and are unfamiliar with each other's methods of play. A common set of face-to-face procedures under which people can game are a necessity as the competition in this field expands and as money prizes become more common and more significant.

It's the same in time-limit play, and once they're used to it, some find that they prefer a fast-moving, hard-hitting contest to a slow, dragging social gathering.

Spartan International has full details on time limit tournament play through its Box 1017, Bellflower, California 90706 address. Face-to-face tournament regulation booklets cost $1.00.

Playability & Practicality—A Starter's Guide

By Mark Saha

What's the fastest set-up time game in the entire Avalon-Hill catalogue? Think about it. Well? The answer may surprise you, but in my book (the full tournament version) ANZIO is a top contender. There are so few pieces on the board at game opening—and in precordained positions—that you can plunk them down in seconds and "get on with it," especially if you're winning. Simply put, you cannot move a unit again once you have touched it and then touched another unit. If you want to remove a unit, it must be done before moving any other unit and it must be within that unit's movement capability to retrace its step. You cannot "call a move back" under this system. This requirement alone forces the player into making decisions under pressure. Incredible blunders are made possible which are not possible under so-called "normal" playing conditions.

The time element is an important consideration in competitive gaming—especially as conducted by the BCL. Note the time clock being used by the neutral judge.

THE GENERAL

Starters

by John W. Gates

In the introductory sections of this article, I have tried to dispel certain misconceptions about tournament play and to set forth some of the fundamentals of what constitutes a "playable" game. I am now ready to discuss the actual rules of tournament play, and to show how they apply to the specific games of tournament play. The first step in this process is to determine the type of tournament that is to be played. There are two common types of tournaments: single-round and double-round.

Single-round tournaments are the simplest type of tournament to conduct. The rules of the tournament are established before the start, and the players enter the tournament by paying an entry fee. The tournament is then played until a winner is declared. The games are usually played in a single session, and the winner is determined by the number of games won.

Double-round tournaments are more complex than single-round tournaments. The rules of the tournament are established before the start, and the players enter the tournament by paying an entry fee. The tournament is then played in two rounds, with the winners of each round advancing to the next round. The games are usually played in a single session, and the winner is determined by the number of games won.

The rules of tournament play are designed to ensure fair play and to minimize the possibility of cheating. The rules of the tournament must be clearly stated, and the players must be familiar with them. The players must also be familiar with the rules of the specific games that are to be played. The rules of the tournament are usually published in a tournament rule book, and the players must be familiar with them. The tournament rule book should be distributed to the players before the start of the tournament.

The tournament rule book should include the following:

1. The rules of the tournament.
2. The rules of the specific games that are to be played.
3. The schedule of the tournament.
4. The procedures for determining the winner.

The tournament rule book should be distributed to the players before the start of the tournament. The players should be required to sign a statement indicating that they have read and understand the rules of the tournament.

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THE GENERAL

Now, I realize a lot of you nit-pickers out there are going to start yelling "ouf!" once you've agreed to leave the O/A cards set up, you want to argue. GETTYSBURG or GUADALCANAL become the fastest set-up time games. Well, you've missed my second point, which is practicability. Since those two games don't have many pieces in the first place, set-up isn't really a problem—but even O/A set-up here is not easy in the least, much less keeping a lot of mounted O/A cards for various games stacked around your room. Just ANZIO and, if you happen to be a nut on it, 1914.

But I'm not finished with ANZIO yet. While you're at the stationery store, pick up a set of oversized 4"x6" index cards. These can be used to make an O/A card for each of the Republican and Monarchist armies, and these O/A cards can be mounted on the same poster board as their parent allies. The remaining Italian units (that start on the game board) are simply stored in the stacked O/A cards. Once you happen to be a nut on it, 1914.

There is one final use for the remainder of your oversized index cards, and you'll find them useful in this regard in play of many other A/H games. Any highly specialized or "out of the way" rules that you have trouble with can be neatly typed out on separate cards, and kept there handy. As a last resort, you may need to go constantly flipping through the rules book. For instance, if you use the optional "Retreat Through ZOC" rule (ANZIO Battle Manual, page 11) you really should type out the rule and chart on a separate card. The same holds for many of the Order of Appearance rules on piece crops (unless you prefer to Xerox these two facing pages and cut them out for handy reference).

If you're one of the (apparently) fortunate few who happen to own a copy of ANZIO but really haven't gotten into the game, you owe it to yourself to give these suggestions a try. You have to play the tournament variant a couple of times to appreciate how good and playable it actually is (the mini-games are quite satisfactory, if your time is limited. Also, Game III "openings" make for excellent solitary; invade different areas to test Italian reaction and see whether the Germans can stabilize the situation—but most people seem to be put off by the sheer number of pieces available.)

If you do decide to use these rules for during every move. Obviously, this article is intended mostly for those just getting started in gaming—or who have been "put off" by a game that seemed just too much trouble to play. However, even if you don't happen to own any of the games discussed here, the basic principles I've outlined can be used in making your own rules. You do have more playable. If you own a game that you like but don't play as often as you'd really want, mostly because it seems to take so long to set up or because play for some reason seems sluggish and too much work, something can probably be done.

A simple "7" on a Blitzkrieg unit suffices to say that this unit is not available until the 7th turn. A red "I" on the backs of the 15th Panzer units serves to let you know that it is part of the Germans' reinforcement levy in May. Similar numbering systems for the other games do much to reduce playing times.

WATERLOO; write "G" on the back of French forces that start at Gosselies, and "M" on those at Marchienne. Write "Q" and "N" on the Anglo forces starting at Quatre Bras and Nivelles, number the arrival times of other forces; "1" through "8" on the O/A card, and write the corresponding number on the back of the appropriate units. You may wish to use "S" and "SA" for June 18th arrivals to distinguish Anglo and Prussian units. Leave the rest of the counters at both ends blank. Now, it is a simple matter at the start of a game to invert your counters as you dump them from the game tray and sort them for arrival and deployment, or better yet—divide your gametray into the proper compartments.

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PBM EQUIPMENT

Tired of playing solitaire or humiliating the same opponent day after day? You may be good in your game room but what can you do against a good player from another part of the country? There's only one way to find out—play them by mail! PBM is an easy-to-learn and convenient-to-use system of playing fellow gamers across the nation. A special CRT and combat resolution system makes it impossible to cheat! PBM is an entirely different experience from face-to-face. PBM has made better games of many who have tried it, and all those who have mastered it. PBM is the only way to participate in the many national tournaments held regularly for Avalon Hill games. Each kit sells for $4.50 postpaid and includes enough materials to play virtually dozens of games, including addendum sheets which list official grid-coordinates for those games not already provided, and special charts and CRT's for postal play.

Kits are available for the following games:

- AFRICA KORPS
- BULGE
- MIDWAY
- BLITZKRIEG
- KRIEGSPIEL
- LUFTWAFFE
- PANEZERBLITZ
- GETTYSBURG
- D-DAY
- STALINGRAD
- GUADALCANAL
- WATERLOO
THE GENERAL

SERIES REPLAY PANZERBLITZ
(Situation No. 6 Revised)
Russian—Richard Plock
German—Robert Livermore
Judge: Roy Easton

Situation 6, replayed here, involves a German mobile defense and victory is most often achieved by the player making the fewest mistakes. In this particular game, the Russian player lost because he refused to risk his units in situations where they might have broke the German line or died, depending on the roll of the die. Thus we have the direct opposite to the AFRIKA KORPS game featured two issues ago in which the players let the die decide the game. This commander demanded situations in which he was sure of the result—and as a result he did not win. The German player, for his part, lost a victory because he refused to sacrifice blocking units on two key squares and did not use all of his available units in the final battle.

Options and rule interpretations used:

The indirect fire (regular version) and real-space line of sight determination were the only listed options used. In addition, while the game was played face-to-face, the play-by-mail rules and combat results were used (using a decimal randomizer). Thus, the effect of fire was not known until after movement. Finally, the following interpretations (not specified by A-H) were agreed upon: Initial setup—Russian: Ten hexes to be full hexes; Russian may set up on hexes through row W inclusive. Indirect fire: The CP may direct fire and load on the same move.

The neutral commentary for each move is provided after the Russian comments in the shaded area.

Each diagram shows the current German move and the Russian preceding move since it is the German's withdrawals which control the tempo of the game.

Russian Comments: Move Setup
I feel the German has a slight advantage in this situation, but only a marginal one. If I (Russian) can reach the end of board no. 1 by the end of move no. 5 without losing any significant number of units OR I can reach there on turn no. 6 AND have significantly weakened the German (especially in mobility), I have a good chance. I must actually be leaving the board (i.e., on row A or B) at this time. Any earlier, and I should win easily; later and I have no chance.

I want my heavy tanks to be free to expose themselves to enemy fire without giving my opponent easy victories, hence they will not carry passengers (which would have a defense of 1). If I wish, I can reach the area south of hill 135 almost as fast from hill 130 as from hill 127, hence do not need many units on south edge. The only units visible from any part of board no. 2 are the Su 152's; he can do no better than 1-1 on one of them. Doing so leaves the CP and long range guns in poor position; I doubt if it is worth it to him. My trucks are almost useless; they will have the primary function of picking up units I have to unload when I am in a hurry.

Set-up: The Russian set-up is reasonable but he should have the SMG units mounted on the farthest-forward tanks. The German units don't need to be in the gully and all should be on the roads.

Turn no. 1 German Comments
Since the German moves first, the setup and first move are taken together. Board number 1 has better terrain for a mobile defense or delaying action than board number 2, and thus one immediate objective is to hold the Russians on this board as long as possible. The idea is to take as far forward a blocking position as possible while retaining mobility and preventing losses.

The German probably can not prevent the Russian player from getting a minimum of between 15 to 25 pieces on board 3 (Russian marginal to tactical), if the Russian gets on board 2 before turn 5. On the other hand the Russian player can not reasonably expect to get 10 or more pieces on board 3 by the end against a reasonably intact German force, if he gets on board no. 2 after move 6. Thus the German objective for the first five moves is to prevent the Russians from getting on board 2 before turn 5 while imposing on the Russian losses which are at least twice his own. This condition must be realized with a couple of restrictions in mind: 1) The losses ought to be very great and not in tanks and preferably not in vehicles at all. This is what is required to keep the German 'reasonably intact'. 2) The Russian player must not be permitted to get even two pieces behind the German's main force; otherwise he can greatly hamper the setting up of a defensive line.

Slowing the Russians down does not just depend on blocking roads physically as has been done with positions R9, Q9, P9 and 08 but also on leaving him open to heavy gun fire which can be executed by guns which can fire with immunity from counter fire points. We see that this holds for pieces 631, 621 and 32. Of course, one could argue that both the Wespe (621) and the Hummel (631) ought to be fired directly from board no. 2, but just as they are out of harms way, they are often too far out of the way to do harm. The most questionable placements here are those of pieces 33, 102 and 91, 33 is clearly out of action for at least four turns. But it is well placed for armor attempts against the town and experience has shown that it is rather difficult to pull halftracks or tanks off a pressured defensive line in order to cover a newly opened flank by dropping off a gun. No. 91 is placed out of harms way and to be in a prepared position when the Russians cross the hill, and to make sure that if by some fluke of fate, or blunder the Russians should get behind the Germans, at least there is no free ride into the town. 201 is unloaded to spot for 91.
Russian Comments

This is about as far as I can get without giving away his plans. So far as the Russian is concerned, the difference between the T-34's in 1-P-10 and the German tank is not such that I dare spend much time on it. I am trying to dislodge the Wespe and Hummel, and I am going to try to dislodge the Wespe & Hummel next turn if all possible. At least I am threatening any unit left east of hill 109, and the 75 mm gun at L7 in the bargain (by unloading my infantry on M7)—although I don't dare spend much time at such games.

A point to think about: not only do I have to reach board 3 to win, but I must also destroy at least 1 German unit to avoid a loss. Therefore I cannot sit still and be content with no attack; completely aside from the fact that it would make for a dull game, I would lose.

TURN 1: German: Since the 88 doesn't have a good field of fire from 1-B-6, why bother to dismount? Something should be covering Hill 104. The placement of halftrack 446 is good but Pz IV no. 931 should be up closer to the front line. I prefer to keep my CP mounted on a halftrack and I don't see any need to dismount East of I-1-5.

TURN 2 GERMAN COMMENTS

I can hold the position I M4-5 for this turn and will probably risk the loss of some pieces if I hold longer than that. This means, however, that the Wespe and Hummel still enjoy immunity from attack. This is particularly important with respect to the Russian capture of positions 1-K, 7-9 and positions I-L10, I-M10 or the hilltop positions I-M9 (hill 109) or I-L9. The Russians can occupy these positions on turn 2 if they please, but they will certainly lose something and cannot get anything back. The Russians will probably take these positions on turn 3 when they can get their SU 152's into I-M5. This means that I keep my Wespe and Hummel where they are, I can no longer fire at those units with impunity. The Russian's occupation of these positions gives him a strong Northern flank on my positions around the main road and threatens Adsk. It is an extremely powerful move which may be delayed as long as possible.

The taking of position I-M4 also makes position I-K untenable as a blocking position. Thus this position will probably have to be given up on turn 4. The placement of piece 931 prevents the Russians from unloading infantry in square 1-K2 and hence threatening squares I-J4 and I-13 with close assault next turn.

The gun was loaded (no. 32) since the Russian can unload infantry in such a way that only the gun can attack them with an odds ratio to no better than 1 to 2; the gun would certainly be lost in a subsequent close assault with no gain to show.

The position keeps the Russians off the hill one more crucial turn. It also keeps him away from the center and northern sections. It is true that quite a bit of territory was given up, but any more advanced position is not safe.

Russian Comments

He has saved his gun and blocked hex K4 which I wanted to use to get to J6. However, I can definitely dislodge the Wespe and Hummel this turn. They are worth far more than the (at best) four units he could get in return (e.g., 933, 934, 183, & 184/2-1 odds). The lone halftrack in the north is in deep trouble; I think I have it trapped.

The pieces in the north give him too many targets to handle; he must evacuate. His halftrack is trapped. His 840, 931, and 953 are threatened and will have to leave. (Unless he simply picks off a passenger, his best shot is a 3-1 by the Panther. The return fire is 4-1. Likewise the JagdPz IV—its best is 1-1, return fire 4-1). He has no overrun possibilities. I still must watch out for that 88 mm gun, though.

I am on schedule, but can't seem to gain any. I would like to be about 1 hex further advanced to allow for possible delays.

TURN 2: German: This advance defense is a very good idea, and not much territory has been given up as a result. This is very important since the German must trade space for time throughout this game. Putting a tank (or Jp IV) in I-M5 is a good practice and one in I-L7 wouldn't hurt. A halftrack on I-P-9 will slow the Russian advance by the turn that it takes to destroy it. Squares I-P-9 and 2-H-5 are very important and are probably worth the German's sacrificing halftracks to have wreck counters on both of those squares.

Russian: The lack of German blocking units in I-P-9 or in I-Q-9 has allowed the Russian to capture Hill 109 and this position forces the SPA's to retreat. Were they in 1-D-7, they would be able to fire. The limited field of fire of the 88 is now apparent and this unit must also be evacuated. German halftrack no. 446 is not trapped. On the whole, this is a good Russian move.

TURN 3 GERMAN COMMENTS

It's back to the drawing board, or I'm eating crow liberally sprinkled with hot peppers. Clearly the Russians can take the slope. The halftrack no. 446 is now in danger of being shot up seemingly by every piece of armor in the Soviet arsenal. The best move for it is to square have been lost. The German might have been well advised to leave a halftrack in I-P-9 where it would have slowed the Russian advance effectively.

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TURN 1: German: Since the 88 doesn't have a good field of fire from 1-B-6, why bother to dismount? Something should be covering Hill 104. The placement of halftrack 446 is good but Pz IV no. 931 should be up closer to the front line. I prefer to keep my CP mounted on a halftrack and I don't see any need to dismount East of I-1-5.

TURN 2 GERMAN COMMENTS

I can hold the position I M4-5 for this turn and will probably risk the loss of some pieces if I hold longer than that. This means, however, that the Wespe and Hummel still enjoy immunity from attack. This is particularly important with respect to the Russian capture of positions 1-K, 7-9 and positions I-L10, I-M10 or the hilltop positions I-M9 (hill 109) or I-L9. The Russians can occupy these positions on turn 2 if they please, but they will certainly lose something and cannot get anything back. The Russians will probably take these positions on turn 3 when they can get their SU 152's into I-M5. This means that if I keep my Wespe and Hummel where they are, I can no longer fire at those units with impunity. The Russian's occupation of these positions gives him a strong Northern flank on my positions around the main road and threatens Adsk. It is an extremely powerful move which may be delayed as long as possible.

The taking of position I-M4 also makes position I-K untenable as a blocking position. Thus this position will probably have to be given up on turn 4. The placement of piece 931 prevents the Russians from unloading infantry in square 1-K2 and hence threatening squares I-J4 and I-13 with close assault next turn.

The gun was loaded (no. 32) since the Russian can unload infantry in such a way that only the gun can attack them with an odds ratio to no better than 1 to 2; the gun would certainly be lost in a subsequent close assault with no gain to show.

The position keeps the Russians off the hill one more crucial turn. It also keeps him away from the center and northern sections. It is true that quite a bit of territory was given up, but any more advanced position is not safe.

Russian Comments

He has saved his gun and blocked hex K4 which I wanted to use to get to J6. However, I can definitely dislodge the Wespe and Hummel this turn. They are worth far more than the (at best) four units he could get in return (e.g., 933, 934, 183, & 184/2-1 odds). The lone halftrack in the north is in deep trouble; I think I have it trapped.

The pieces in the north give him too many targets to handle; he must evacuate. His halftrack is trapped. His 840, 931, and 953 are threatened and will have to leave. (Unless he simply picks off a passenger, his best shot is a 3-1 by the Panther. The return fire is 4-1. Likewise the JagdPz IV—its best is 1-1, return fire 4-1). He has no overrun possibilities. I still must watch out for that 88 mm gun, though.

I am on schedule, but can't seem to gain any. I would like to be about 1 hex further advanced to allow for possible delays.

TURN 2: German: This advance defense is a very good idea, and not much territory has been given up as a result. This is very important since the German must trade space for time throughout this game. Putting a tank (or Jp IV) in I-M5 is a good practice and one in I-L7 wouldn't hurt. A halftrack on I-P-9 will slow the Russian advance by the turn that it takes to destroy it. Squares I-P-9 and 2-H-5 are very important and are probably worth the German's sacrificing halftracks to have wreck counters on both of those squares.

Russian: The lack of German blocking units in I-P-9 or in I-Q-9 has allowed the Russian to capture Hill 109 and this position forces the SPA's to retreat. Were they in 1-D-7, they would be able to fire. The limited field of fire of the 88 is now apparent and this unit must also be evacuated. German halftrack no. 446 is not trapped. On the whole, this is a good Russian move.

TURN 3 GERMAN COMMENTS

It's back to the drawing board, or I'm eating crow liberally sprinkled with hot peppers. Clearly the Russians can take the slope. The halftrack no. 446 is now in danger of being shot up seemingly by every piece of armor in the Soviet arsenal. The best move for it is to square have been lost. The German might have been well advised to leave a halftrack in I-P-9 where it would have slowed the Russian advance effectively.
else to the north. I am approximately on schedule, but have no leeway.

TURN 3: German: The move of 446 was a good one and the SPA's are finally back in the woods. The German is falling back in good order and is not being pressed by the Russian.

Russian: The failure to mount SMG units on the lead tanks now becomes important. The tanks at I and H should have SMG units not AT guns and Recon units. Since there is nothing on Hill 104, at least one tank should be in the gully at 1-1-2. I doubt that there was a need to unload no. 185 but this unit can be easily picked up so there is really no problem. The failure to get no. 446 now will come back to haunt the Russian later. I doubt that the German would have fired no. 953 at any Russians in 1-1-7 since this would have led to the loss of that unit and a hole in the German lines later.

TURN 4: GERMAN COMMENTS

The halftrack (no. 446) escapes by getting into the woods on the north side of the main road.

The placement of the Russian's infantry pieces (185, 186) render the advanced position taken by the German very dangerous. No. 185 can only be shot at by the tank (931) at an odds ratio of 1 to 2—hardly a good risk. It's true that the tank could over-run the infantry and gain improved odds, but it faces the full fury of the two SU 152's, which can attack 931 with at least 3-1 odds. (SU152 has "H" weapon class)

Given the line of fire rule, the tank could fire at one of the SU 85's, but after halving and doubling the result is still only 1 to 2. The only condition in which the tank could possibly retain its position is that it could guarantee at least dispersal of 185, and this it cannot do.

No. 186 can CAT whatever is in 114 or 113. Unless, therefore, I am willing to put enough units in both squares to insure that they cannot even be dispersed, I cannot afford to stay. Dispersal here is equivalent to loss on a subsequent turn since a defensive position usually can be held only for one turn without

Due to the difficulty of graphically showing 4 or more counters in the same hex, whenever two loaded carrier units occupy the same hex they are designated by a letter as follows:

<table>
<thead>
<tr>
<th>LETTER</th>
<th>DESIGNATION</th>
<th>CARRIERS</th>
<th>PASSENGERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>T-34's (932,931)</td>
<td>SMG (181, 182)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>T-34's (916,925)</td>
<td>SMG (185, 186)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Halftrack’s (441,442)</td>
<td>45mm (11, 12)</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>T-34's (933,934)</td>
<td>SMG (183, 184)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>T-34's (937, 938)</td>
<td>76.2mm (33, 34)</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>T-34's (934, 941)</td>
<td>76mm (33, 34)</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>T-34's (937, 942)</td>
<td>Recons (131, 132)</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>T-34's (938, 941)</td>
<td>76mm (34, 34)</td>
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</table>

German 4th turn: The Russian need for forward SMG support is now more readily seen. The units at H and I should be shock troops—not recon and anti-tank guns. The German has now formed a solid defense which the Russian will find hard to breach. 1-1-7 should have been occupied to forest the German into making a stand prematurely or give up the extra hex. By being so cautious the Russian is risking his own timetable.
managed to penetrate his line, or eliminate any of his units.

**TURN 4: German** The German has formed a good defensive line. The CP should not have been dismounted and will shortly be lost for that reason.

**Russian**: Tanks should occupy 1-E-8. If the Wespe wants to fire, the Russian will trade a T-34 for a Wespe, quite a good trade, from the Russian point of view. The Russian cannot win this game without taking a few risks and, so far, the Russian has refused to take any.

The German has formed a defensive line. The CP should not have been dismounted and will shortly be lost for that reason. The Russian has refused to take any risks.

**TURN 5**

**GERMAN COMMENTS**

The Russian can't get on board 2 by turn 6. I hold Adski, since I can put in enough strength so that the CATing recon units can't even disperse them. A blocking position is formed by halftracks on the slopes of hill no. 104 and the slopes connecting that hill with hill no. 126. I can thus prevent the Russian from getting on board 2 and still start Hummel, the Wespe and the 88MM (no. 41) back to suitable positions on board 2, such as 2-0-5. It will be difficult for the Russian to win now.

So much for the good news. Now to the bad news. The CP is definitely lost. The tanks had to move for the same sort of reasons stated previously. Now it may seem that I look upon my pieces the way Napoleon regarded his men—as his children. But there are good reasons for this concern. The Russian Player is relieved of great pressure when he gets a unit up on the German; from then on he can afford even exchanges, which permits him to increase pressure. Conversely the German is working from a deficit position for a win.

Unless one of us blunders, the outcome at this point looks much like a tie (0-0). Another point illustrated is that given careful play, the Russian can pretty much decide whether or not the German can get even a marginal.

**Russian Comments**

**Move No. 5**

His units in Adski show why I needed to have those stacks of units interchanged back on turn no. 2. With two SMG units, I could have launched a CAT assault at 1-2 odds against his JgdPz IV and Panther units. This would have given me an even chance for a dispersal; which, if achieved, would have been disastrous for him. The recon units just do not have the strength.

Fortunately, the CP dies. Not only does this put a stop to any ideas of indirect fire, but the dead unit will be of help when the bloodbath comes. It may be thought I am being overly cautious, but if I reach board no. 2 having lost, say, 3 units to his one or none, I am in very deep trouble. A frontal assault is invariably required to reach board no. 3; and I would have to make sure of eliminating more units than I lose to boot. I want to make the frontal assault with an advantage in kills, preferably 2 or 3 units.

I think he will abandon Adski, although he might try to make a stand. It is a poor location for this; if he tries, I outflank him to the south. I wanted to put the Su 85's on hilltop 104, but the Hummel and mortar give him a 3-1 shot. I will play it safe; the board is now opening out. Worry: I am approximately 1 hex behind the schedule I need; his roadblock is too complete. As indicated, my trucks are finally going to be of some use.

**TURN 5**

**German**: A relatively unaggressive Russian offense has given the German a minimal victory at this point. The Russian will have trouble crossing Board 2 in the face of an intact German force. A little prior planning would have saved the CP. Units should never be lost without something for the enemy and this exchange did not occur here. The German must now concentrate on destroying some Russian units.

**Russian**: The Russian has finally managed to attack a German unit but he is not advancing fast enough. There is a good reason for the Russian to move the SU-152's to 1-D-2 where they can command all of Hill 129. The German would probably not choose to attack them with the Wespe which would be halved due to attacking a unit on a hilltop, since an unsuccessful attack would result in the loss of the Wespe.

**TURN 6**

**GERMAN COMMENTS**

The grumblings of my opponent inform me that he is very displeased with the placement of the Hummel (no. 631) on turn 5. This placement was made due to any tactical appreciation on my part of the painful dilemma, the placement has caused him. The absurdity is that the position resulted from a miscount by my opponent (who is a physicist). I accepted his count (intended to correct my own supposed mistake) partly because I have miscounted my fair share of movement distances, partly because it did not matter, since by either count the Hummel could reach the position I wanted it in (205) on turn 6, and partly out of weariness. It is also clear that he didn't appreciate the implications of the placement at the time of the move count either; otherwise, I'm sure, he would have counted yet another time.

I relate this humorous incident to illustrate some of the random and often absurd factors that determine the 'strategy' of face-to-face play.

Since the Russian did not put anything on the two squares of hill 104, the German can occupy the slope squares on the Southeast slope of hill 129 immune from danger of destruction or dispersal. This is a position of crucial importance both to the delaying action and to pushing the 120mm mortar (no. 91) in the town. It was probably a mistake to leave the piece in the town, but the position I have may permit its rescue.

My positions deny the Russian possession of the S-E slope squares, the town of Golod, and the adjacent forest squares, all of which are required if the town is to be held for one more turn. Of course, holding the town another turn is perfectly consistent with my delaying strategy.

The central fire position taken on 2-0-5 has a total fire power of 140 against any armor which is on level ground or in a river bed, anywhere between 2-0-5 and South of the town of Golod. The same hex has a power of 110 against infantry in the same area and terrain. The fire position is most effective against pieces placed anywhere South of the town and between the North slope of hill 129 and the edge of board 2. It has no reach Southeast of the hill. But the best line of defense in North of town will anyway. Besides controlling the main and only through road, the positions North of hill 129 cannot be blocked against advance the way the positions South of the hill can. This can be done below the
swamp at 2-1-10 and by taking positions at 2L10, 2M10. The Russian can only go around this block by turning North into the fire zone.

Of course another advantage of the selected fire position is that it is immune from attack until spotted or CA1Ted. This is the place I intend to hold with the pieces which are there. In other words the Russian will have to shoot his way through here. This is really the last decent and probably the best place for a slugfest from the German point of view. If the position is also defended by tanks and halftracks, the Russian will have great difficulty flanking the position as we shall show without exposing himself to severe losses.

I unloaded the gun (no. 54) since its carrier is likely to be under attack during the fire fight which must occur if the Russian is to advance in time to get pieces on board 3 by turn 10. I'm picking it up with a halftrack so that I may have discretion concerning its disposition. I predict that the fireight, if it takes place will commence on turn 8.

**Russian Comments**

**Move No. 6**

Damn, I forgot I needed hilltop 104 to keep him off the slopes of hill 132. I blew it; I should have taken the risk—probably with the Su 152s since their defense is larger. That would have stopped the trouble in the south. I am definitely behind schedule now.

Those blasted long range guns on hill 132 have me nacked (or at least indecently exposed) if I try to hit Golod immediately or to bypass it to the north. The only hex they can't hit is open to fire from his heavy.

I am going to try to outflank him to the south, but I am afraid I have far too far to go. The route is a poor one, too slow. If he overlooks it, I am going to try to get to hex M10 next turn.

Right now the mortar in Golod has become an important unit. If he saves it and can block me off at the same time, I don't think I can win. If he does save it, my 2 unit advantage may enable me to make a quick frontal assault.

**TURN 6: German**

Aided by the Russian mistakes of last turn, the German has formed a good defensive line—probably with the Su 152s 2-0-3 which is protected by the field of fire from 2-0-5.

**Russian**

Russian caution is probably in order on the southern flank but some tanks should have been moved into the woods at 2-B-2. Using normal LOS determination, 2-0-5 cannot fire at 2-B-2, but under the optional rule, such fire could be allowed. The Russian player is in deep trouble now and must take some risks in order to win. 1-34's on 2-B-2 could get into the woods at 2-3-1 on the next turn.

**TURN 7**

**GERMAN COMMENT**

The only 'holes' in this defensive line are at 2E5 and 216. 216 has very poor potential considering the positions he can subsequently take. Only one is really safe from massive fire (217) and that position hardly threatens a breakout. The other position does not give much possibility of outrunning my blocking forces, but it does offer the Russian a possibility of trapping a number of my units, five in all, including three tanks. This is a risky position for the German to be in, but, by remaining in the town he can rescue the gun and keep the Russians out. Considering that any encirclement of the town requires some units to be in open terrain facing 140 antiarmor and 110 anti-
**TURN 8** GERMAN COMMENT

The fire fight clearly can't happen until turn nine. He decided, wisely in my opinion against trying to trap the units in the town. Probably he should not try to engage my forces at all, since I can guarantee now that he can't get 10 pieces on board 3 simply by getting all my halftracks with some infantry or guns (total numbering at least ten) back in front of his force. This I clearly can do at this point.

He is in a poorer position for a fire fight since he has had to unload guns and infantry to force me out of the town. I have attempted to establish a fire position which is fairly evenly balanced on both the North and South sides of 205. Of course the Northern flank of the hill is easier going for the Russian and this must be considered. He can't get beyond 2P1-2 on the North side which keeps his feet well to the fire.

**Russian Comments**

**Move No. 8**

This move is one of sheer desperation, and is fundamentally unsound; analysis indicates I should probably take my draw (which he cannot prevent). This assault is the only possible chance I have of ekings out a win; if I do not attack now my chances of winning are zero. I do not think I have much chance anyway, but if everything goes right I may manage. It would help if he were to defend improperly; at least this gives him a chance to do that. The odds are at least 3-1 against me; about even that he will get a win. It will be bloody, but he should lose almost as heavily as I do. I don't know what he was saving his 75mm guns for. At least anything that shoots at me is spotted. I needed to be able to make a move like this on turn 7 to have had much chance.

I have to unload the infantry to be able to make close assaults, so any unit that does make it through will not have a passenger (with the possible exception of 942). That makes it rough to get the count to 10. I don't think the trucks have any chance, but I will bring them up anyway. I will keep the rest of the units out of danger; they can no longer have any effect in the game.

**TURN 8: German**

Although the Russian cannot win the game now, the German should have left a halftrack on 2-H-3 to deny free Russian travel along the road. Occupation of this square would have prevented the SU-152's and T-34's from advancing adjacent to 2-O-5 and might have turned the game into a German victory. Had this mistake occurred on Turn 7, it would have been extremely costly. There is no reason for the 75mm AT to be loaded on Halftracks. They should have been unloaded and put on the firing line.

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**Russian: "Tout le monde a la Bataille" as the saying goes, but too late. The Russian had a choice to either stage this last desperate attack to try to salvage a win or to retreat and, having destroyed one German unit, manage a draw. I think that the Russian decision was a correct one but the general attack came a turn too late. The Russian should probably have avoided putting units on squares such as 2-N-7 and 2-M-3 where they are easy marks for overruns.

**TURN 9** GERMAN COMMENT

It was an oversight not unloading the 75MM ATgun (no. 33). Also I could have put infantry on the slope in front of the fire position, but these would have probably been lost without changing the result and there is an absolute minimum of halftracks and passengers which we must be sure of getting back in order to prevent the Russian advance onto board 3. Actually, I can take up a position so that the Russian can't get a single piece on board 3.

The blocking position taken up by the halftracks speaks for itself; they cannot be overrun by any Russian vehicles and the Russian can't even get to the slope edge except in the North East.

My firing was determined by two factors: Russian casualties and my own. The 4 to 1 attack against 932 allowed 441 to leave 2N2. The other 4 to 1's were taken to reduce his fire power as much as possible. The overrun's were done for two reasons: (1) the odds of dispersemnt were certain, while the odds of destruction of the defender were the same as shooting and (2) while overruns make the attacker more subject to counter attack, they also cause dispersal of the return fire. Of course, in one case, I could overrun two pieces, a gun and a tank at 2N8, and this gives even more reason for that overrun. I think that 9-9 loss is a virtual certainty now. I know that the Russian can not win even a marginal.

**Russian Comments**

**Turn No. 9**

I made a mistake: should have put a halftrack on N7, left 948 and 34 on M6. I think he made several errors this turn: he should have hit the loaded tank (which I probably should have...
unloaded), and definitely should have tried to get the three stacks in the south so that his units on M7 would not be spotted. That might have guaranteed him a win.

I have no choice, I am forced to try for the draw. He has 11 units to block my path, only requires 8. I would need two turns after this to get even 1 unit on board no. 3; there is no point in trying, especially since I need 10. He has destroyed 8 units, I have one so far. I need at least 8 more, can guarantee 3. I am going for 4-1 shots on everything I can see. I would like to use selective fire on the stack (41, 621, 631), but I can't get 4-1 odds on each one that way. I will bring up another infantry unit in case I need it next turn.

I have my draw. I destroyed 9 units this turn, giving me a total of 10.

**TURN 9: German:** This is the turn of the slugfest. The German should try to destroy as many Russian units as possible with 4-1 and overrun attacks. The T-34 no. 942 should have been destroyed since it is carrying a passenger. The infantry unit no. 143 should have C ATed the Russian half-track no. 441. Every possible German unit should be involved in the attack except those halftracks needed to seal off the roads west. The German failure to destroy or disperse all of the Russian units adjacent to 2-O-5 means that the German guns will stand an 80% chance of being eliminated on the next Russian phase.

**Russians:** With so many of his own units destroyed, the Russian has salvaged a draw by destroying many of the German units. Realizing that he couldn't win, the Russian wisely went for the draw and destroyed as many German units as possible.

**Final Comments:** This situation demands a very aggressive commander and this Russian just wasn't quite aggressive enough. The German made some serious mistakes which the Russian couldn't take advantage of because he was behind his schedule. (No comments on Turn 10 moves.)
Decide how much of the forces available to you to use, but then your performance will be judged on how well you use it. We think this is not only simpler, but more realistic, and more exciting, too.

The original game was known for a multiplicity of special rules. We have re-written these for clarity, and retained them for optional use. We have also included a series of new rules covering naval gunfire, tactical airpower, increased use of commandos, and paratroops (for both sides), limited intelligence, and a number of others.

With all this, the most avid devotee of realism should be happy, while the probably larger group preferring a playable game can start with the Basic Game, and also add to it appropriate parts of the Advanced Game, as desired.

The new game will change everything but the mapboard. Even that atrocious box has been done away with. We will sell present owners the parts they need to update their first edition copies separately but due to assembly costs they will probably find it cheaper to order the new game intact rather than piecemeal. At the very least, owners of the previous edition will need new counter sets, all the charts, and the rules.

Also making its appearance in the mail order ranks will be JUTLAND. This game was rather poorly designed initially and the reissue will be dedicated primarily to cleaning up the unworkable victory conditions, search procedures, and general ambiguities which plagued the older game. The components will be altered and upgraded somewhat in addition to a general redressing of the rules. One of the best improvements however will be the installation of three mini-game situations which makes JUTLAND a game that can be played in an afternoon, rather than a week as was the case with the old game. The new situations recreate the battle of Dogger Banks and add a pair of fictional confrontations between limited Battle Cruiser forces and a restricted British Sweep.

Probably of more interest to you is our redesign of CHANCELLORSVILLE. This divisional level game has long been the most sought after collector's item in all of wargaming - selling for upwards of $30 a copy. The first edition of the game will probably continue to command that price as a collector's item because it is almost totally divorced from the "D Elim" mode of the original game. The game utilizes four phases to bring in artillery fire from both long and short range on a CRT which can be aptly described as a "push" rather than "kill" table.

Unlike the original version where the Union player was faced with a "D-Day on a river" situation, Union forces are able to cross the Rappahannock as in the historical campaign. But a tough set of victory conditions keeps the Union from running roughshod over Lee's forces. The game system forces players to maintain reserves and use them judiciously or be faced with massive overruns. Players need not fear the "D Elim" die roll as the CRT deals in "disruptions" and the player who can not cover the flank of a disrupted force is in trouble. All in all, we think it may be our next "classic" game - a real nail-biter for both sides. Everything has been changed from the original version. The bland D-Day style map has been redesigned and artistically re-lettered into a playable and aesthetically pleasing board. CHANCELLORSVILLE, like JUTLAND and ANZIO will be a flat box game.

The new Chancellorsville being playtested in the Avalon Hill game room.

We turned to a new designer and a new period for our 4th mail order game. Gary Gygax had previously published several titles on his own. One of these, ALEXANDER THE GREAT, got pretty good reviews and caught our eye as we've long been looking for an entry in the ancient period. Not content with the original, however, Don Greenwood sat down with Gary and worked on a redesign of his original prototype. After three prototypes we came up with the game currently being tested. The rules of the earlier edition were greatly improved, the Macedonian forces upgunned a bit, and of course, the physical components vastly improved.

ALEX represents a new type of game. It, in essence, creates a board game out of what are primarily "miniatures" rules. The player maneuvers and attacks with his unit counters, yet much of the "miniatures" are folded up. Players handle their figure trays. The matter of morale, so important in ancient warfare, is carefully simulated and recorded via a pair of Morale Status Tracks, and four different CRTs; one for each level of morale. The lower a side's morale, the less its ability to attack or defend successfully. Obtaining and maintaining an edge in morale is pretty much the crux of the matter in ALEXANDER.

The situation itself, the battle of Arbela, is one which is hard to simulate without throwing play balance and any semblance of "gameness" to the winds. Consider the original situation wherein Alexander, outnumbered more than 2 to 1, totally routed an opposing force of over 100,000 while sustaining a mere handful of casualties. The Persian who saw the rank in front of him cut down was definitely not inspired by themes of home, motherhood, and apple pie. More likely his reaction was how to extract himself from the fray in one piece. The Greeks were also inclined to bolt when the going got rough but far less so than the barbarian levies of Darius. This can be reflected in the game by simply starting the Persians at a lower point on the morale
Dear Editors,

I am writing to express my concern about the recent developments in Corsica following the 1943 offensive by the German Army. According to the accounts, the German troops were able to advance rapidly through the region, despite the strong resistance from the French forces.

As a historian, I am particularly interested in the strategic decisions that led to this outcome. It seems clear that the quick victory was due to a combination of factors, including the weakened state of the French forces, the terrain, and the surprise attack.

What I find most disturbing is the lack of a coherent plan for the defense of Corsica. It appears that the French high command was not prepared for a rapid German offensive, and this led to a series of costly mistakes.

I urge you to consider publishing an article on this topic, so that the lessons of the past can be learned to avoid similar mistakes in the future.

Sincerely,

[Your Name]
**AFRIKA KORPS**

**REPULGMENT-BATTLESCENE REVIEW 1-2**

*THE GENERAL*

**AFRIKA KORPS** is the 10th game to be reviewed in the **RBG**. It received a cumulative rating of 4.36, 2.95 which ranks 1st on the list of games reviewed thus far. *AFRIKA KORPS* came out of the **RBG** online boardroom.

The game managed to set one record for the **RBG** with the 2.29 rating in the 'Completeness of Rules' category where it posed **STALINGRAD** by 23. This is a strange category for the game to shine in if one considers the many wild rule interpretations governing the capture of supplies and the use of them to sustain attacks in the same turn that have filtered down through the pages of the **GENERAL**, by a host of answer men. In all fairness though, the only problems existing with the rules are probably the result of faulty rule interpretations which were made official by the **GENERAL**'s answer man in books of the same year. 

We have the 14 years of popularity. Games sharing the panache of excitement and still left have been excelling in recent years.

**1776** will be reviewed in the next **RBG**. We pointed out in the review of **1776** that we felt it would be interesting to see if it is possible for an existing board game to break early in the game. It any game can look good after nearly 15 years of rule changes. The good in the play of the game.

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**AFRIKA KORPS** is a fast-moving game of maneuver utilizing a low-piece density and a one-section layout. The placing of time 1 and 2 hours and 10 minutes a week before the trade ordered, although it often ends far earlier if one side or the other can gain a decisive break early in the game.

**AFRIKA KORPS** is probably destined for another 14 years of popularity. Games sharing the panache of excitement and still left have been excelling in recent years.

**Game length**

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<td><strong>Game Length</strong></td>
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**ANZIO: PORTRAIT OF A GAME**

Putting on a Replica game in quite a different light – undertaking – either for the players or for those of us who think about the way the rules are scrawled, or saved and commented on in the next turn.**ANZIO: PORTRAIT OF A GAME**

Said to be a game which may not be reduced to 12. Included among the many rules and high-piece density, the game system, by the way, is by John Prados. MIDWAY. One might wonder if a more experienced board game designer could have written the rules. That about sums up our "sneak previews"...

We'll provide you with more information on this phase of our operation as the printing date approaches.

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**PREMIER COLUMN**

**ALEX, -**

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**AFRIKA KORPS** is a fast-moving game of maneuver utilizing a low-piece density and a one-section layout. The placing of time 1 and 2 hours and 10 minutes a week before the trade ordered, although it often ends far earlier if one side or the other can gain a decisive break early in the game.

**AFRIKA KORPS** is probably destined for another 14 years of popularity. Games sharing the panache of excitement and still left have been excelling in recent years.

**Game length**

<table>
<thead>
<tr>
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<th>2 hr 15 min</th>
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The Lake Geneva Tactical Studies Association will once again be sponsoring the Lake Geneva Wargames Convention, known throughout the wargaming world as Gen Con. 1974 marks the 7th anniversary of Gen Con and the event has been expanded to three days in honor of this; the oldest of American wargaming conventions.

All gamers of any persuasion are invited to the Horticultural Hall, 330 Broad Street, Lake Geneva, WI for a 3-day weekend of fun August 23rd—25th for the fun and competition of Gen Con VII. The doors will open at noon on Friday and close at 11 P.M. Saturday will commence at 7:30 A.M. and continue through 11. The convention site will open on Sunday for the last time at 9 A.M. and close at 8. The events schedule includes competition in every popular period of miniatures and the featured Avalon Hill STALINGRAD tournament utilizing 4-5-6 replacement rates. Inquiries should be sent to Gary Gygax, 330 Center St., Lake Geneva, WI 53147.

Speaking of STALINGRAD tournaments, the winner of Interest Group Baltimore's First Annual Tournament was Robert J. Beyma (above right) of Alexandria, VA who makes the trek to the Avalon Hill gameroom whenever there's loot to be won. Besides the pictured trophy Mr. Beyma walked away with 4 new games, courtesy of Avalon Hill. Among the entrants topped by Mr. Beyma was Bruno Sinigaglio—noted winner of last year's EAST CON in New York. The unsavory character at the left, by the way, is your intrepid editor, fresh from another all night stand on a current playtest. If you'd like to drop in at the gameroom to pick up half-priced games (damaged) or join in the testing or just plain play a game feel free to do so any Saturday between 10 and 6 at 1501 Guilford Ave., Baltimore, MD 21202.

The "Flying Buffalo's 2nd Annual Convention" will be held from 9 A.M. June 28th to 5 P.M. June 30th at 271 E. Garfield, Tempe, AZ. The big shiek here is computer-moderated multi-player wargames although tables will be available for more conventional games. For more details contact Richard Loomis, P.O. Box 1467, Scottsdale, AZ 85252.

When submitting questions to us for answers on rules of play, be sure to fully diagram all situations rather than merely listing grid coordinates. Also, be sure to mention that you are a GENERAL subscriber so your questions can be given priority over non-subscribers.

Infiltrator's Report

English gamers have been getting Avalon Hill games in increased supply thanks to the efforts of our exclusive agent in England, Michael Hodge (above right). Limey interested in picking up Avalon Hill games should contact Michael at his 646 High Rd., N. Finchley, London address.

Pictured above are the volunteer workers of the Avalon Hill booth at the recent Model and Crafts Consumer Show in Anaheim, CA. The four Spartans (members of Spartan International—a professional gaming organization) played games during the show and fielded questions from the 25,000 in attendance on both Avalon Hill games and wargaming in general. Miss MACS was also a definite asset and aided immeasurably in the games playing. Is it any wonder we're swamped with volunteers to man our exhibits?

LOYAL SUBSCRIBER DEAL: This month's special offer is a collector's paradise. Recently while moving one of the company's executive offices to a new home, a cache of forgotten "library" games was unearthed deep in his basement. Avalon Hill has always made a definite asset and aided immeasurably in the games playing. Is it any wonder we're swamped with volunteers to man our exhibits?

Now—how to parcel these out fairly to the many interested collectors of first editions. We started out by disqualifying Avalon Hill employees—several of whom were foaming at the mouth at the prospect of adding a perfect Civil War or Hex Gettysburg to their collections. Then we decided to limit it to GENERAL subscribers only. This still leaves many more collectors than games available, so here's how we'll handle it—if you're interested in any of the above games send us a list of the games you are interested in purchasing at the above prices along with a stamped, self-addressed envelope. Send no money! We'll then hold a drawing for each collector's item in which there are more requests than games available, the winner will be notified that he can purchase the game and upon receipt of his check, the 1st edition will be sent. The postage coupon printed in this issue of the GENERAL will suffice for postage costs.

The Cincinnati Games Convention, scheduled for July 12-14, 1974, promises to be another 1st rate affair. The event will be held at the Xavier University Armony for a two-day admission charge of $2.50 if preregistered prior to July. University dorms will be made available for convention attendees for the very reasonable rates of $6 per night (single), or $4.00 for double occupancy. This air conditioned, modern buildings are the utmost in convention facilities. The main event will be an Avalon Hill Tournament to be umpired by the Professional Wargame's Association. The winner will receive $100 cash. An additional $150 in other prizes through 10th place make this the boardgame convention of the year!!! Participants may play any game in the tournament that an opponent is agreeable to, but must know how to play Afrika Korps which will be used whenever opponents can not be matched for other preferences. There is an additional $2.50 fee to enter the tournament. Interested parties should write Jack Hesselbrock, 311 Miami Valley Dr., Loveland, OH 45140 or call 513-831-5343 prior to July. Prices will rise at the door.

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<th>Quantity</th>
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<tr>
<td>21</td>
<td>Football (flat box edition)</td>
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</table>
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OPPONENTS WANTED

Dustan Koellhoffer, 49 Parkview, Poughkeepsie, NY 12601. 

Wanted: Opponents in all AH games and especially Fire and Steel. Will send setup sheet and info for Fire and Steel or 15 cents in postage stamps.

Arlene Borig, 100 Parkview, Poughkeepsie, NY 12601. 

Wanted: Opponents in all AH games. Must have an extreme desire for any type of player! Glenn Finney, Allgood Rd, Stone Mountain, GA 30087. 

Strong desire for any type player! Matthew O'Brien, 135 Brooklea Dr., Rochester, NY 14624.

Others. I have an ill game. Thomas A. Konczal, 2726 Tallman, Channelview, TX 77530.

Wanted: Anyone wishing to take part in a Afrika Korps Binhampton; Kiel 3905 791-4793. 

liğe player of high school age needs it. Have almost every game. Will play anyone. Am I the only Gamer in Owensboro, KY? clinic in good condition and G- for Blitzkrieg, AK, Blitz. For 40, 1776, R-war. Club wishing to join the Wisconsion Wargamers in Milwaukee. I'll take the Germans if in Europe. I want a new opponent near age 13. Wanted to play Finnerty, 139 Brooklea Dr., Rochester, NY 14624. 

Average opponent near age 13. Wanted to play Finnerty, 139 Brooklea Dr., Rochester, NY 14624. 

Steve Marsh, 2976 Hanover Rd., Lima, OH 45805. 

Have no time for play. Join a club and play! Tom Nolan, 215 Tallman, Channelview, TX 77530.

Average opponent near age 13. Wanted to play. Dustin Koellhoffer, 49 Parkview, Poughkeepsie, NY 12601.

No other person to play! Join a club and play! Tom Nolan, 215 Tallman, Channelview, TX 77530.

Benton Ave., Youngstown, OH 44502. 


Wanted: AnLio good condition. Send price offer. 455 S. Chevy Chase, 3545 Quebec St., NW, Washington, D.C. 20010.

High Schooler with unknown ability demands bids answered. Rick Bvrens, 15260 Fenton Rd., Ste. 41, CA 91404. 282-4150.

Dove, 3545 Quebec St., NW, Washington, D.C. 20010.

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