

Volume 23, Number 5



The AVALON HILL GENERAL

The Avalon Hill Game Company's GENERAL is dedicated to the presentation of authoritative articles on the strategy, tactics, and variation of our games of skill. Historical articles are included only insomuch as they provide useful background information on current AH titles. The GENERAL is published by The Avalon Hill Game Company solely for the cultural edification of the serious game aficionado, in the hopes of improving the game owner's proficiency of play and providing services not otherwise available to the game buff The Avalon Hill Game Company is a division of Monarch Avalon Industries, Inc. The shares of Monarch Avalon, Inc. are publicly traded on the NASDAQ System under the symbol MAHI For information about the company write to Martha Burman at the executive offices the company, 4517 Harford Rd., Baltimore, MD 21214. Publication is bi-monthly with mailings made close

to the end of February, April, June, August, October and December. All editorial and general mail should be sent to The Avalon Hill Game Company, 4517 Harford Road, Baltimore, MD 21214 One year subscriptions are \$12.00 Two year subscriptions are \$18.00. All domestic subscriptions sent via bulk permit. Domestic First Class Delivery and all subscriptions to Canada and Mexico must pay an additional \$12.00 per year postage charge. All overseas subscriptions must add an additional \$18.00 per year postage charge. Send checks or money orders only. The Avalon Hill Game Company is not responsible for cash lost in transit. Those with a current American Express, VISA. MasterCard or Choice may call 800-638-9292 toll free to renew subscriptions or order merchandise. Absolutely no complaints or questions will be handled on this number. Any business other than a credit card purchase must be handled by mail. Address changes must be submitted at least 6 weeks in advance to guarantee delivery. Paid advertising is not accepted, but news of importance to the gaming community is solicited. Convention announcements must be received at least 3 months in advance and contain information pertaining to The Avalon Hill Game Company's games in use.

Articles from subscribers are considered for publication at the discretion of our editorial staff. Articles should be typewritten, double-spaced, and embrace the tenets of good English usage. There is no limit to word length. Accompanying examples and diagrams should be neatly done in black or red ink. Photographs should have caption and credit line written on back. Rejected articles will be returned whenever possible. Potential authors should be advised that all outside submissions become the sole property of The Avalon Hill Game Company

EXECUTIVE EDITOR: Donald J. Greenwood

MANAGING EDITOR: Rex A Martin GRAPHICS: Jean Baer, Charles Kibler and Regina

COVER ART: Joe DeMarco AREA Technician: Brenda Parrish GENERAL Subscriptions: Richard Snider

Purchase of Games, PBM kits and parts: Michael J. Tharle FOREIGN DISTRIBUTORS: Overseas readers are urged to make subscription arrangements with the approrpiate agent, AUSTRALIA: Jedko Games Ltd., 134 Cochranes Road, Moorabbin 3189, Victoria, GREAT BRITAIN: T.M. Games, Chart House, Station Road, East Preston, Littlehampton, BN16 3AG, HONG KONG: Wilkinson (Far East) Co., 1741st Floor, Peninsula Centre, 67 Mody Road, Kowloon, ITALY: Selegioch s.r.l., Via Fumagali 6, 20143 Milano; JAPAN: Post Hobby, Yoyogi, Cityhomes Bldg 26-5, 5-chome Sendagaya, Shibuya-ku, Tokyo 151; LEBANON: Nassar Trading Post, Makdissi St., PO. Box 113-5284, Beirut, SINGAPORE: Wong International Entr., 6 Jalan Sinar Bulan; Singapore 1750; SPAIN: Joc Internation de F Matas Salla, Sant Hipplit 20, 08030, Barcelona 6; SOUTH AFRICA: Gamma Games Ltd., PO. Box 2904, Capetown 8000, SWEDEN: Target Garnes, Frihammen, S-100-56 Stockholm, WEST GERMANY: DAS Spiel, Rentzelstrasse 4/Ecke Grindelalle, 2000 Hamburg 13

Rules Questions: R&D, NOTE: all questions should be diagrammed. No questions can be answered which are unaccompanied by a self-addressed envelope. Questions must be based on rules of play (not historical or design matters) and be based on the current rules edition. Questions on more than one game must be listed on separate pages and accompanied by a separate SASE for each game.

IF YOU CHANGE YOUR ADDRESS: Inform us immediately.

The Post Office destroys magazines even if you leave a forwarding address. The Avalon Hill Game Company assumes no responsibility for issues lost due to an invalid address. ase state both your new and old address

Copyright 1987

ISSN 0888-1081

AH Philosophy Part 119

Rex A. Martin Managing Editor/The GENERAL Avalon Hill

Dear Sir.

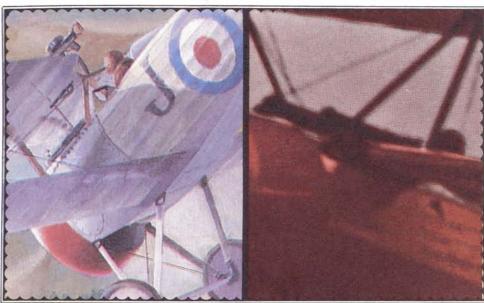
I'm sorry that I'm writing to you so late. But nevertheless I would like to thank you very much for publishing T. Machowski's article about his visit to "Groteka". American war gamers reacted to our appeal quickly and effectively. Efficient organization of the parcels brought unexpectedly marvelous results.

I am pleasantly surprised by the Americans' generosity and sympathy. We always appreciate very highly the American help in all possible fields, but I did not expect that we could count on you in such a common and prosaic matter as these games. Your substantial help distinctly enlivened the interest in war games here.

Many people and many clubs who had suspended their activities because of the lack of war games have lately restarted with them. New clubs have been formed in various cities. If we use these games correctly, they will last for a long period of time. We all agree that all these games should be kept in one place, that is in "Groteka" in Warsaw. It is also our common belief that we should create a central library to which all the players in Poland will have an easy access, and we would like someday to have facilities to copy the games. Later on we would like to re-supply the library if we can.

We know that we can't count on a steady and constant flow of games being sent to us by our contributors. But we think that a growing interest in war games published in the USA will result in personal imports, as is the case with the computers. A language barrier constitutes a substantial obstacle. We have decided to overcome it by producing an appeal in our press and in TV in which we will ask people knowing English well to help us

Continued on Page 27, Column 1



PLANE FACTS The Design of KNIGHTS OF THE AIR

BEYOND THE WAR TO END ALL WARS Hypothetical Scenarios for KOTA

THE FIELDS OF BELGIUM Wellington & Bonaparte: The Captains Meet

OPERATION RAINBOW

LIKE A THUNDERBOLT Western Options for THIRD REICH

Results of Contest #131

THE QUEEN IN GERMANY More Targets for B-17

FLYING LESSONS FROM THE BARON Updating RICHTHOFEN'S WAR

PILOTS, MAN YOUR PLANES A Commander's Notebook for VITP

SOUAD LEADER CLINIC How to Kill Tigers

By Mick Uhl

By Rex A. Martin

By Elwood Carlson

By Rex A. Martin

By Craig F. Posey

By Doug Blayaert

By Michael Anchors

By Robert Harmon

By Jon Mishcon



May 11th, 1944 . . . The Germans had exacted a heavy toll for American advances in Italy. Night attacks were now deemed necessary to break the stalemate. The moon was new, but the lack of cloud cover made it seem incredibly bright, or so it seemed to the men of Company F as they stepped off into the darkness towards Hill 103.

June 6th, 1944 . . . They had scaled the cliffs and taken the lightly-defended coastal battery position with relative ease, but they lacked heavy weapons and their backs were to the sea. Each Ranger now anxiously looked inland for the German response which was sure to come across the cratered land-scape of Pointe-du-Hoc.

September 20th, 1944 . . . British paratroops were being slaughtered in Arnhem. There was no time for more frontal assaults on the Waal River bridge. Gavin would hurl his paratroopers across the river in a daring, daylight river assault to outflank the German defenses. How many of the flimsy boats with their cargo of heavily-laden fighting men would make it across against the swift current?

January 3rd, 1945 . . . Hitler's last gamble was just about spent as the Battle of the Bulge drew to its inevitable conclusion, but the embattled defenders of Bastogne knew they would have to endure the fury of yet another armored assault as they watched tanks of the 9th SS Panzer Division deploy for one last desperate attempt to crack the American lines.

This is YANKS . . . the long-awaited American extension to the ASL game system. An extensive U.S. Army countermix is presented so that you can command every major vehicle, weapon and troop type that saw action in the European Theater. Whether you play the eight historical scenarios or use the Point Values to design endless situations of your own, you'll find countless hours of exciting entertainment in the game system that GENERAL readers have proclaimed to be the best ever by a wide margin in that magazine's game rating survey.

While you will be able to play some scenarios without learning a single new rule, YANKS also includes Chapter E for insertion into your ASL binder. Composed entirely of optional rules, Chapter E allows the avid player to add Night, Interrogation, Weather, Ski Troops, Boats, Swimming, Air Support, Gliders, Paratroop Landings, Ammo Vehicles, Convoys and Artillery Barrage rules to his ASL repertoire. Four new geomorphic boards (16-19) depicting a variety of rural settings complement the varied assortment of playing surfaces available for this acclaimed game system. Relatively new SQUAD LEADER enthusiasts should note that boards 7 and 12 are necessary to play three of the scenarios included herein.

YANKS is now available for \$35.00 from The Avalon Hill Game Company, 4517 Harford Road, Baltimore, Maryland 21214. Yanks contains no rules; ownership of the ASL Rulebook and BEYOND VALOR is required. Please add 10% for shipping and handling per order (20% for Canadian orders; 30% for overseas orders). Maryland residents please add 5% state sales tax.



Britamia

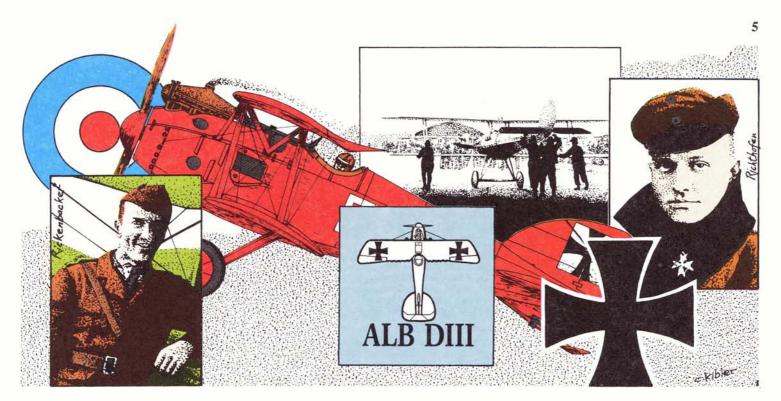
uring World War II the British proudly proclaimed that their island had not been (successfully) invaded since the Norman Conquest of 1066. Yet before this famous invasion of William the Conqueror, the island of Britain was the battleground for dozens of invading tribes whose great movements caught up entire peoples, sweeping them into the highlands or into oblivion.

the Roman legions of the Emperor Claudius arrived to conquer Britain in 43 AD, and held sway over most of the island for almost 400 years. After the withdrawal of the Roman legions, new invasions began by Angles, Saxons, Jutes, Scots and Irish. For a while the remnants of Roman civilization held out under the leadership of the legendary King Arthur, but were eventually overwhelmed. The Saxons and Angles vied with each other for dominance until both became the target of a new threat from Scandinavia-the Vikings. Danish and Norse invasions of Britain began around 800 and continued into the 11th Century. In that climactic year of 1066, Harold the Saxon defeated the last great Norse invader, Harald Hardrada, but was in turn defeated by William.

Britannia is The Avalon Hill Game Company's new multiplayer game about the 1000 year history of the birth of Britain. Play begins with the Roman invasion of 43 AD, and ends with the last great invasions by the Norwegians and Normans in 1066. Each of the sixteen game turns represents about 85 years. Each player controls several nations, not all of which are in play at the same time. While a nation exists, you must attempt to score as many victory points for it as possible. Points are scored for controlling areas in Britain, eliminating the armies of other nations, for killing enemy kings, and for having the leader of your nation proclaimed King of England. The player who has scored the most victory points for all of his nations is the winner.

Nations play in order, starting with the Romans and ending with the Normans. Nations who haven't yet appeared, or who are already eliminated, are skipped. A nation's turn consists of placing reinforcements, checking for population growth, placing new armies, army movement and combat. Armies may move one or two areas (and in some cases three). Opposing armies in the same area fight each other by rolling dice—a roll of 5 or 6 normally eliminates an enemy army. Cavalry armies, Roman armies and leaders have special advantages in combat. Although the mechanics are simple, there are many opportunities for strategy.

Britannia is available now for \$25.00 from The Avalon Hill Game Company (4517 Harford Road, Baltimore, MD 21214). Please add 10% for shipping and handling to each order (20% for Canadian orders; 30% for overseas). Maryland residents, please add 5% state sales tax.



PLANE FACTS The Design of KNIGHTS OF THE AIR

By Mick Uhl

Just why an airplane behaves the way that it does may surprise many uninitiated in the mysteries of aerodynamics. It certainly fooled me. I had carelessly supposed that one operated an airplane rather like a car, except for the need of an additional control to regulate diving and climbing. I was absolutely wrong. Because an airplane must be able to create a counter-force to gravity, something the ground handles at no cost for a car, its controls give responses very different from what one might expect. For example, what happens when a car driver steps on the gas pedal? Our experience tells that the car will speed up. But what happens when a pilot pushes forward on his throttle, the airplane's equivalent to the gas pedal? The airplane doesn't accelerate; it climbs. This paradox can be easily explained once the principles of flight control are understood; and, because they were of great influence in my design of KNIGHTS OF THE AIR, let's look at these principles.

THE BASICS

An airplane must obey the same laws of physics that govern every body with mass in the universe. Try to remember those rules and formulae about energy and motion that you assidiously memorized in school. Do you recall the law that described the relationship between force and acceleration? It is perhaps, next to Einstein's E=mc2, the most famous equation in physics-force=mass times acceleration (usually abbreviated as f=ma)-and it serves as the foundation to the understanding of motion. To translate, it says that in order to change the speed or direction of a body with mass, a force must be exerted upon it. It is important to note that the term, "acceleration", is used here in its scientific meaning of "change of velocity". This encompasses changes of direction as well as changes to speed since velocity, because it is a vector, has a measured speed and a measured direction.

When no force is exterted on a body, no acceleration can occur and, ergo, the body must remain

in a state of constant velocity. In other words, it must continue to move at a uniform speed and in a uniform direction until such time as another force is exerted upon it. Physicists describe this condition as a state of inertia. An important corollary of the f=ma equation states that, upon entering an inertial state, a body continues to move at the same speed and in the same direction it was travelling at the moment the operating force was removed.

Controlling an airplane then becomes a matter of creating a way to direct a force upon the airplane when a change of speed or direction is wanted and then removing or cancelling the force when a fixed course is wanted. Studies show, however, that not one but four different kinds of forces impinge upon an airplane:

- 1. Thrust—a force produced by the airplane's engine to propel it forward.
- Drag—the resisting force of the air to the passage of the airplane.
- 3. Lift—a part of the drag force re-directed by the wings to counteract gravity.
- 4. Gravity-an absolute force of nature.

How does an airplane respond to four distinct forces? It simply treats them as if they were one force with a magnitude and direction equal to their sum. This accumulative effect is a consequence of the vector nature of force. It's easy to visualize how it works in simple situations. To give just one example, when two equally strong forces press upon a body from opposite sides, the body doesn't react at all and continues unconcernedly along its current course as if there are no forces acting upon it at all. More complicated force patterns are illustrated in the diagram.

Often the true reasons for a physical action are at great variance with our intuitive ideas of the laws of nature. Suppose, for instance, that an airplane is in a steep dive at a high speed. Again, by referring to f=ma, we know that if the speed isn't changing

and if the dive is in a straight line then no force can be acting on the airplane. Yet someone will surely protest that gravity must be pulling on the airplane; otherwise why would it be diving? Admittedly, gravity does play a role in the acceleration process. However, once the acceleration ceases, the sum of the four forces acting on the airplane must reach a total of zero. What nullifies the force of gravity? The drag must be blamed. It has been blithly increasing right along with the airplane's speed. Eventually, it reaches a strength to neutralize the gravity and thereby stop the acceleration process. The airplane continues to dive only because that was the course it was travelling at the moment the acceleration ceased.

I hope that you're beginning to see how force and inertia affect flight. When an airplane is flying a steady course, say 250 mph at 20000 feet, it need only provide enough forward thrust to nullify the amount of drag at that speed. Gravity is cancelled by the portion of the drag the wing redirects to lift. The four forces are in balance and their sum force is zero. If either the thrust or drag suddenly changes, so that one no longer matches the other, the forces are out of balance and the airplane will accelerate until thrust and drag are again equal.

THE CONTROLS

We've all seen airplanes taking off, performing all sorts of intricate maneuvers, and then landing safely. Somehow the pilot manages, through his controls, to regulate enough of the thrust and drag to permit all of these activities. What does he use? Only two—a throttle which regulates the engine's forward thrust; and a joystick (or control stick) which, when moved forward and back regulates the elevator vanes on the airplane's tail. The elevator sets the angle of the wings to the flight path and, thus, the amount of lift generated at any speed. The same joystick when moved from side to side tilts the airplane's wings; in this altitude, part of the wing's lift force is brought into a horizontal direc-

tion and pushes the airplane into a turn. These two controls are sufficient to put an airplane anywhere wanted.

Let's examine more closely how the elevator functions. Consider, first, what would happen if there were no way to adjust the wing angle. The wing could only develop as much lift as the speed of the airplane allowed it. At each speed, it would produce a different amount of lift. Consequently, there would be just one speed, and one speed alone, at which the lift matched exactly the force of gravity and let the airplane stay on a level course. At any other speed, lift and gravity would be out of balance and the airplane would be forced into a dive or climb. Certainly, no pilot would tolerate such a lack of freedom in his craft.

What is needed is a control which permits a pilot to adjust his airplane's wing angle. Then, if he wished to fly on a level course at another speed, he could merely adjust the wing's altitude to whatever angle provided, at that speed, the exact amount of lift force to cancel the pull of gravity. This is precisely what the elevator does. Placed out at the end of the airplane's tail, it transforms the craft into a moving weathervane. Like a weathervane, it will force the airplane to rotate whenever the four forces are put out of balance. It will stop rotating only when the combination of wing angle and speed produce the lift force needed to cancel the force of gravity. The four forces will then be back in balance.

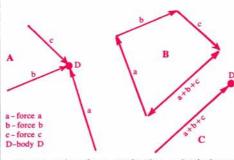
In effect, the joystick has become the speed control for, at each of its elevator settings, there can be only one speed at which lift and gravity are in balance and the airplane in stable flight. An attempt to change the airplane's speed without a commensurate adjustment of the joystick, or vice versa, will only force the tail to swing around, putting the airplane into a steeper and steeper climb or dive until the proper speed is recovered and the equilibrium of forces restored.

The elevator, then, is to blame for the airplane climbing at the increase of engine power. The control stick has dictated at which speed the airplane will fly and the sudden increase of thrust only forces the tail down and the nose up until enough of the force of gravity becomes available to cancel the change of thrust. The airplane then continues at this rate of climb in an inertial state of balanced forces. If the pilot does wish to increase his airplane's speed, he will need to change his control stick setting first to the position where the wing angle will provide the proper balance of lift and gravity at the desired speed. Now that everything has been made clear, I can proceed to the design analysis.

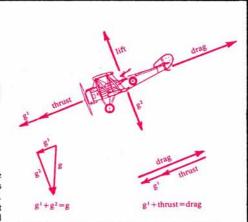
THE DESIGN

One may justly wonder why I should have recommended that The Avalon Hill Game Company produce a second World War I air game when RICHTHOFEN'S WAR has given such exemplary service so far. I took this daring step because I felt convinced that I could combine the simple mechanics of a game like RICHTHOFEN'S WAR with aerodynamically accurate profiles of airplane performance. My conviction grew out of my studies of flight and aerodynamics, some of which I have just touched upon. I believe that such important performance characteristics as acceleration, dive and climb rates, and turn radius could all be accurately incorporated into a single game mechanic.

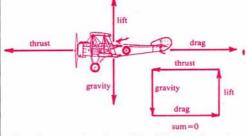
I admit that I was very cocksure that I would succeed and quickly devised a system which I thought answered perfectly. Such smugness rarely goes unpunished, and this would be no exception. A small but fatal flaw inevitably doomed it. (Even though this approach hasn't worked here, I still retain enough faith in the underlying procedure to cherish a hope that I may be able to adapt it to another design sometime in the future.) I called this system the



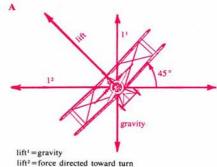
Vectors, such as force, acceleration, and velocity are graphically represented as arrows. The length measures the magnitude while the arrowhead points its direction. Adding vectors is accomplished by positioning them point to tail. The sum force is found by connecting the open tail to the open point. In illustration A, three vector forces labelled a, b and c are operating on body D. To predict how D will respond, add the three vectors, point to tail, as shown in illustration B. Body D will be accelerated by the sum force a+b+c as shown in illustration C.

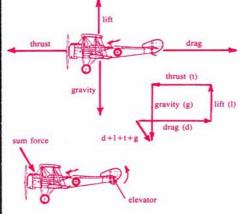


Recalling the previous illustration of the airplane in an inertial dive, drag always equals the thrust plus the component of gravity directed to the flight path. A force may be split into two components, as gravity is here, if the sum of the components equals the total force.

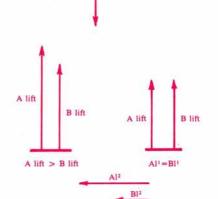


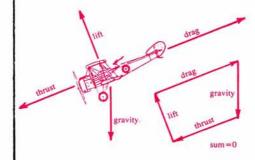
Four forces (gravity, thrust, lift and drag) continuously operate upon an airplane in flight. So long as their sum equals 0, the airplane will move at a steady speed and direction, the result of its inertial state.





Whenever the forces become unbalanced, due to a change in the throttle or control stick setting, the elevator swings the airplane around to compensate.





Eventually the airplane reaches an attitude where the forces are in balance again. The airplane will then stop rotating and thereafter maintain a steady, inertial course until such time as the pilot adjusts his controls again.

Al² > Bl²

An airplane turns by redirecting part of its lift in a horizontal direction. The steeper the angle of bank, the more force is directed toward the turn and the tighter the airplane will turn. But in the process, the airplane must increase its total lift to maintain elevation. This can result in a great strain on both the pilot and the airplane at the steeper angles resulting in a maximum bank above which either the pilot or airplane will collapse.

"energy exchange system" and it worked like this:

I divided an airplane's activities into two groups—those that convert potential energy to kinetic energy, and those that convert kinetic energy into potential energy. A player of one of the planes was allowed to perform whatever activities he wished from one group so long as he performed activities of an equal energy 'value' from the other group and, thereby, maintain thermodynamic conservation. For instance, if a player wanted to dive his airplane 20 feet, an action which converts potential energy to kinetic energy, he would also be required to do something that converted kinetic energy to potential energy—say increase his speed 10 mph or reduce his engine power by 20 horsepower. Pretty clever, huh?

To work, energy scales were needed for the various activities. I proceeded to calculate the energy values for each type of activity. I vaguely remember deciding that an increase of one mph was the energy equivalent of a drop of 14 feet in a ten-second turn-but then, the 14 feet could also be just the last two digits of my social security number. But that's not what is important. Has anyone guessed yet where my mistake lay? I neglected to consider that the scale might not be the same throughout an airplane's performance or range, and indeed they are not. The energy needed to increase an airplane's speed by one mph depends upon the amount of drag force it must overcome to make the change; and this amount of drag force is not fixed but increases with the speed as has already been discussed. So, if an airplane travelling at 70 mph needs to dive at a rate of two feet per second to increase its speed by one mph, when travelling at 150 mph it may be forced to dive at a rate of four feet per second to accomplish the same increase of one mph. To include a table of energy requirements for different speeds would ruin the simplicity of the energy exchange system, so I had no alternative but to discard it.

After picking up my shattered ego, I contritely proceeded to search for another method that could relate speed, horsepower, and altitude changes. I remembered then the vector nature of forces. If I were able to calculate the precise amounts of force needed to overcome an airplane's drag at different airspeeds, and the amounts of force that gravity contributes or deducts from airspeed when at various rates of dive and climb, then relating the two would be a simple matter of addition. This was the inspiration for the system eventually used.

When a player sets the rate of his airplane's dive or climb in KNIGHTS OF THE AIR, he is also showing the amount of force gravity is contributing to the airspeed. That's why "climbs" are given a negative value and "dives" a positive value. In a climb, gravity detracts from speed whereas in a dive it contributes to speed. Add to this force the amount of thrust the engine is producing and the player has obtained the total force pushing the airplane forward. Then all he needs to do is find which of his airplane's speeds requires the same amount of force and he has determined how fast his airplane must now be travelling.

I realized that this approach demanded a great deal of mathematical calculation on my part but I sincerely believe that, in this case, the end did justify the means. All of the work has been built into the game design. A player is never asked to do more than make a simple addition or subtraction during play.

The job became a time-consuming chore as I decided to calculate the speed/force relationship purely by mathematical formulae—of which many were required. (Airplane drag is more complicated that one might suppose, there being, in actuality, two distinct kinds of drag at work at all times.) Adding to the workload, I was forced to adjust the drag requirements to changes in altitude in order to reflect the reduction of drag in the thinning air

of the upper atmosphere. If that weren't enough, I had to repeat the entire set of calculations for each different model of WW1 airplane since drag varies with an airplane's size and wing area. It was a monumental chore, to say the least, but it guaranteed especially accurate airplane performances at no cost in complexity.

As I continue in this vein of soul-baring, I must make a small confession. For the sake of expediency, I resorted to a small deceit in the game description. What I've labelled as the "Control Stick Track" hasn't really anything to do with that control. The control stick sets speed and would be better served labelling the power tracks. However, I felt that if I had done it that way, I would have doomed players to forever setting their speed first and then calculating their rate of dive or climb from it. It is better practice to set the rate of dive or climb first. Hence, to emphasize the latter order of operations, I resorted to the misappelation. I only bring it up here to assuage my conscience.

In accomplishing its task of calculating air speeds, the "Power Track" is eminently successful. Nevertheless, it fails to take into account the potential energy an airplane accumulates with the gain in altitude and how it, too, influences dive and climb. Let me illustrate with an example. Suppose a pilot, flying a level course, throws forward his control stick (joystick), lets his airplane dive for a certain amount of time, and then returns his stick to its former position. What should happen? Using the KNIGHTS OF THE AIR basic rules, the airplane would level off at the new, lower altitude and immediately discard the speed gained in the dive. In reality, the airplane would not level off but would discard its speed by climbing back to almost the same altitude it occupied upon entering the dive. Why doesn't the KOTA airplane climb back too?

The Power Track can concern itself only with the current course an airplane is flying. It can show us only the fact that two indentical airplanes experiencing the same forces must be flying the same course. It cannot tell us whether the airplanes are at the same or at different altitudes. It, therefore, cannot account for gains and losses of energy an airplane experiences when changing altitude. Of course, it is these very energies that force an airplane, undergoing the just described series of operations, to climb rather than just level off.

It became necessary then to create another system to cover the influence of potential energy. My "Potential/Kinetic Energy Exchange" system was thus born. Its inclusion with the basic power track system now allows our airplane to accurately respond to all changes in engine power, control stick settings, and altitude at all times. I, personally, consider its use to be essential for the success of KNIGHTS OF THE AIR and recommend that this always be a part of the play. So why did I relegate such an important set of rules to the Optional section? It wasn't that I thought it trivial but that I thought it a bit too complicated in its application—that's all.

Another area of airplane performance that I thought could handle a more realistic treatment involved turns. It is not possible to prepare one set of turn requirements for an airplane because the radius of turning depends not upon one factor but upon the combination of two factors—speed and angle of bank. At any one turn radius, an airplane may increase its speed only by increasing the severity of its bank angle. If the angle of bank remains the same, an increase of speed will only widen the radius of the turn. After some thought, I again decided to adopt a track approach to solve the problem.

I calculated for each type of airplane the range of speeds at which it could successfully negotiate each turn radius. The fastest speed in a range indicates the maximum steepness of bank angle the airplane can tolerate without its wings buckling; the slowest speed marks the minimum speed the airplane can maintain in the turn without stalling. The tightest turn radius always has the smallest range of speeds since it requires the steepest angle of bank to accomplish. The very wide turns demand far less steepness of angle, and so may be completed at a much greater range of speeds.

The variations in speed ranges among the different models of airplanes stems from the difference in their stall speeds and their maximum safe angles of bank. It is interesting to note that the reason why the Fokker triplane and Sopwith Camel are the only two airplanes that succeed in executing 1T turns arises not so much out of their abilities to withstand the strains of steep banks but because both had very slow stall speeds. Generally, the larger airplanes were unable to make the tightest turns because of the inability of their relatively longer wings to withstand the increased forces of the more severe bank angles. The Fokker Dr.1 was a popular fighter with German fliers since its three wings permitted a large amount of lift without having to extend their length. The triplane could quickly bank and hold very tight turns, very desirable qualities in a dogfight.

Some airplanes cannot make left turns at the same speeds that they can make equivalent right turns. They all share in common the use of the rotary engine. Though no longer in frequent use, these engines were very popular during World War I by designers for their great power-to-weight ratios. These all did one very peculiar thing; all rotary engines rotated around with the propeller! Only the propeller shaft was attached to the airplane itself. When objects of great weight are rotated at great velocities, they produce large amounts of torque. Rotary engines were no exceptions. The torque developed tended to pull the airplane to the right when making turns in that direction much quicker than ordinary. It also had the opposite effect on turns to the left, making them more difficult than ordinary.

Before quitting the subject of different game systems employed in KNIGHTS OF THE AIR, I would like to make a few brief remarks about the "Reaction Distance" rule. Rarely, in other air combat games, is a distinction made in the handling of aircraft. Each machine is given precise capabilities which never vary. The human element is completely ignored. Now I do not mean this as a criticism because I realize the extreme difficulty involved in introducing such an unpredictable element as human foibles and expertise into a game, especially when the effort needed to impliment it might far exceed any benefits derived from its use. Yet I find it very hard to ignore an element of air combat that is acknowledged by the participants to be just as important as the capabilities of the aircraft being flown.

I decided at the very start of my designing of KNIGHTS OF THE AIR not to neglect the importance of pilot experience relating to the handling of the aircraft and, after spending tedious hours wrestling with the problem, I eventually arrived at the "Reaction Distance" rules. Like the "Potential/Kinetic Energy" rule, I sentenced it to the optional rules section for crimes against simplicity. And, like the "Potential/Kinetic Energy" rule, I'd ask that it not be discarded too quickly before given a fair chance to reprieve itself in your playings.

THE CONCLUSION

I would hope that this all too brief explanation of some of the design considerations and rules will bring readers understanding, and perhaps enjoyment, when they approach KNIGHTS OF THE AIR. Two years of research and design were devoted to this game system, one that accurately reflects—as near as paper and ink yet has—the dynamics of aerial combat.

BEYOND THE WAR TO END ALL WARS

Hypothetical Scenarios for KNIGHTS OF THE AIR

By Rex A. Martin

With that last shell fired on 11 November 1918, the end came to the "war to end all wars"—known by modern historians with their marvelous hind-sight as the First World War. But the outcome of the final offensive by Ludendorff against the British under Gough on March 21st, and its aftermath through the bitter summer months and the Allied offensive of the autumn, were certainly not pre-ordained by conditions. Rather, economic exhaustion and low national morale finally brought the war to an end; it is perfectly easy to envision the situation where after four years of struggle, the participants would have fought on. From reading German and Allied military memoirs, it is certainly apparent that the soldiers themselves were prepared to. And expected to.

The air war had been transformed over the years since those first observers were so ungentlemanly as to fire a rifle or pistol at an enemy plane passing nearby. For the final German offensive in the west, no fewer than 51 Jasta stood arrayed against the British airmen protecting Gough's Fifth Army. Despite the prevailing cloud, fog and rain in March during the opening rounds of the final battle, the RFC launched counterattacks from the air almost immediately, premiering the effective ground support role that would characterize much of future air warfare. The days of the "roving free-booters" and "lone wolves" among combat pilots were ending, and the air combat of 1918 was dominated by the true tacticians of this new era of war. The rest of the war would be exemplified by the massive St. Mihiel aerial offensive (in which at least 1481 Allied airplanes participated under the overall command of Colonel Billy Mitchell, America's flamboyant genius); the American and British planes served in the roles that the RFC had pioneered—trench-strafing and interdiction behind the front.

Lessons learned from air combat in the First World War were many and varied. Most will now seem merely common sense, but the fact that they were first developed in the confusion of that period serves to demonstrate just how complex and unprecedented that struggle was. Common military myth holds that air operations of 1914-1918 were casual and irrelevant on the outcome. Yet in 1918, the hard won lessons were finally being applied by both sides to their operations. These rules fall into two main areas: development and operations. Let us take a moment to review them.

Fighter Development

Sophistication should not be sacrificed to numbers. It is difficult to argue against the fact that sophisticated aircraft constantly outperformed or contributed more than unsophisticated ones. These had longer service lives (the fourth generation Brisfit, for example, remained in service until well into the 1930s). And they could do more (again, the Brisfit acted as scout, bomber, fighter, ground-attack craft, and much more). Because of the pace of wartime research, yesterday's sophisticated machine (such as the Nieuport 11 or Albatross D.III) quickly became tomorrow's obsolescent target. At first glance, there does not seem to be much to choose from in singling out fighter aircraft after late 1916; all had performances of about 110 mph, ceilings of about 16000 feet, and endurances of about two hours aloft. But, the combat of 1918 did show, as Germany put everything that could lift off into the air for one last effort, that large numbers of good planes are better than a few great ones plus a lot of inferior ones.

There is no substitute for good basic design. This is, of course, an old truism. The fighter aircraft of the First World War were generally weak ones. Pilot memoirs abound with examples of pilots inadvertently straining their planes and breaking them up; handling qualities consituted an important area of study in these aircraft. Some fighters simply suffered from bad design. Even the best of pilots had their share of troubles with these, making them less effective in performing their duties. Yet, time and again, flawed designs were allowed into production in the name of expediency. Some, such as the Dr.I triplane and even the Sopwith Camel, had pronounced unsatisfactory characteristics that did not after all affect their usage, but that certainly made more work for the pilots and resulted in a reluctance to exploit their "edge of performance".

Designers must understand the operational needs of the military. By 1918, both Germany and Great Britain (and even the French and Americans) understood what the desirable attributes of a fighter plane should be. But implementation of this knowledge was often tardy (a perfect example is the British pilots bitter, ignored words about the armament of the Sopwith Pup in 1917). Questions on speed versus agility, pilot environment, vision requirements, armament, and others first were seriously considered in the final years of the war. By war's end, for example, the Sopwith Snipe offered its pilots excellent visibility from a raised cockpit, and had provisions for an electrically heated flying suit and oxygen. In 1918, the Fokker D.VII

and Junkers D.I control sticks combined not only the plane's two gun triggers, but its throttle as well—giving the pilot his flight, engine and armament controls all in one stick. At last, aircraft designers were designing planes with the sole purpose of war in mind.

Fighter Operations

Fly when fit. Again, this is a truism in today's jet age. But no conflict in this century better illustrates the wastage of skilled airmen who were unfit for service than the First World War. On the day that von Richthofen died, neither he nor Brown should have been flying (Richthofen had not fully recovered from the head wound he had suffered months previously, and Brown was suffering from severe stomach ulcers). The unexpected psychological strain of constant combat flying caused numerous needless losses. There was no magic number of missions flown to release one from combat (as in later years). Being shot down usually meant, at best, being wounded; at worse, going down in flames without a parachute. Added to the mental strain was the physical strain: flying unheated open-cockpit planes at 12000 feet without benefit of oxygen (hypoxia, frostbite and hypothemia were endemic). Only in the last months of the fighting were guidelines being drafted to address these problems.

You can only make one error. Voss's death perfectly illustrates the merciless nature of the air war. Complacency, overconfidence, and forgetfulness spell defeat. It is truly amazing how many skilled aces perished before the end of the war because of elementary mistakes. Many of these errors stemmed, of course, from the strains of flying alluded to above. Other errors are equally understandable, if unmistakably foolish. Many pilots developed target fixation, concentrating on shooting down the plane in front of them to the exclusion of all else—and in turn being shot down. For the ground attack planes, the same type of fixation threatened. Multiple passes at the same target, then as now, were a virtual gurantee of being shot down.

Avoid the "furball". It proved equally difficult in 1918 as in 1978 to keep track of multiple threats. Dogfights evolved from solitary engagements between two planes in 1915 to battles between several dozen (sometimes as many as 80 to 100 aircraft) in 1918. The most successful aces, and the ones who survived the longest, were the ones who did not stay around and "mix it up"; they dove in and got a kill, flying through to swing round, while constantly checking for threats. It is commonly held that in 60% of all kills in all air wars to date, the victims were unaware of any threat until they were shot down. In a dogfight, keeping track of two enemy planes—let alone five or ten—is almost impossible. And, then as now, the most common error was forgetting to "check six". For those who believe themselves beyond ever making this elemental mistake, remember that even the Baron-himself did, and he paid for it with his life. If you have an enemy plane in front, assume that there is one behind; there usually is

No guts, no glory. On the other hand, it is impossible to claim a victory if you do not "mix it up" with the enemy. Excessive caution does nothing more than make of your craft a target to the foe and a liability to friends. Except at extreme ranges, always turn into the attack when surprised. A few maxims when facing trouble: Don't ever reverse a turn unless you have your attacker sliding to the outside of the radius of your turn. When in trouble in a dogfight, trade airspeed for altitude. Know the performance of all aircraft you are apt to be fighting—and be intimate with the abilities of your own. Have a "last ditch" maneuver to get you out of the enemy's path, and practice it until you are comfortable. With these, and other maxims the pilots of the First World War perfected, you are ready to fly in the skies of KNIGHTS OF THE AIR. Remember that guts will do for skill, but not consistently.

Beyond the End

Given that the war had continued unabated, we can hypothesize about the course of it in the air. After all, the "groundwork" in design and strategy/tactics had already been laid. The best of the aircraft of 1918 would have seen extended service (after all, it took a quantum leap in fuselage design and manufacture for the next generation of fighters to be developed); those shown here would have been the main participants for the next year or so. Of course, some of the new models destined for the front are not represented in the game—the Nieuport 29, the Morse S-4C, the Pfalz D.XII, the Junkers J.I—but they would have been merely uppowered examples of current design philosophies. Inevitably, there would have been quite a few older models still fighting as well, especially in the German estab-

lishment, where everything was thrown into the air as the Allies advanced into Belgium.

Typical missions, as the concepts of gaining "air superiority" and providing "ground support" took firm hold in the minds of higher command, would range from bombing to airfield attack. Of course, patrols would still be flown. And air reconnaissance, then as now, would be a vital mission. But many attacks on transportation and communication targets behind the front would take place. And strafing/bombing of enemy troops would no longer be the exception and become commonplace. Most of these might involve 30 to 40 aircraft, yet occasional small (two plane?) raids would seek to slip in past the enemy patrols. Dogfights would grow in scope until they came to resemble those over England and Germany in a later war. And all would be much more coordinated and carefully planned by commanders behind the front. Already Great Britain had unified its various air commands into a centralized military organization—the Royal Air Force. Likely the other participants on the Western Front would have followed suit after its efficiency had been proved.

The following scenarios are indicative of these operations. All are patterned on the presentation of scenarios in the *KNIGHTS OF THE AIR* rulebook, and all rules for play and victory resolution are in force. While the best game on the market in depicting the actual performance of these planes, its resultant complexity makes larger operations than these difficult to recreate. For those who may be wishing to involve more players (extra copies of *KOTA* will be necessary), I might recommend adding opposing planes to Scenarios 11, 14 and 15 in equal numbers. I have found that even the most experienced player cannot operate more than three planes at one time.

So, if like me you enjoy the state-of-the-art when taking on a role in a wargame—captaining the *Bismarck*, commanding the Imperial Guard, running a PzKw VI, or flying a F-14—these scenarios let you indulge yourself. See what it was like to fly the best available in 1918, and best of luck with this most fascinating recreation of those days of glory.

11. The Railroad Raid

The Allied command had found that ground support meant more than merely strafing trenches and hapless road columns. The airmen had proved in mid-1918 that with daring and the proper aircraft they could interdict troop and supply movements far to the rear from the front. The "Brisfit" was the perfect multi-purpose craft for these missions. In early December, in a last effort to halt the flow of German reinforcements, a four-day operation was laid on to destroy the rail net behind the front lines. Here, three British Brisfits are intercepted on their way to strike a railyard.

- **a.** Use the victory point awards listed under *Victory Resolution* (page 15 of the rulebook). Further, the Allied side receives, in addition, 10 victory points for each Brisfit exited off the north edge of the mapboard.
- b. The scenario ends when all aircraft of either side have exited the mapboard or been removed from play.

c. Lineup

1. Allied Side:

Bristol Fighter—starting hex 0936, nose pointing north, altitude 10605 ft., ace pilot, experienced observer

Bristol Fighter—starting hex 1137, nose pointing north, altitude 10605 ft., experienced pilot, experienced observer

Bristol Fighter—starting hex 0936, nose pointing north, altitude 10605 ft., experienced pilot, novice observer

2. German Side:

Fokker D.VIII—starting hex 2310, nose pointing south, altitude 11076 ft., ace pilot

Fokker D.VII—starting hex 0404, nose pointing southeast, altitude 8889 ft., ace pilot

Fokker D.VII—starting hex 0205, nose pointing southeast, altitude 8889 ft., experienced pilot

12. The Last of the Lone Wolves

The days of the "lone wolves" had been eclipsed by the mass formations and tactics of the new breed of air aces and commanders. Only a few of those who fought for glory remained, looked upon by their fellows as curious anachronisms. It is not surprising that none of these "knights of the air" would survive the end of the war. Indeed, the bitter fighting of the spring of 1919 saw the last of them fall from the skies, even though they were often given the best of the new models, battling overwhelming odds. In this scenario, one of the last great German aces, Goring, tangles with a pair of patrolling American airmen during his final flight.

a. Use the victory point awards listed under *Victory Resolution* (page 15 of the rulebook). To insure that some action occurs, the German player receives 1 victory point if his plane passes through hex 2336.

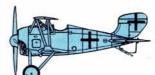
Sopwith 7F.1 Snipe

The Snipe, intended as a replacement for the aging Camel, became operational only in September 1918. Electrical heating and oxygen equipment were standard, and this design was intended to replace all Camels in home-defence squadrons and RN duties if the war had continued.

Wingspan: 30 ft. Length: 19 ft., 2 inches Height: 9 ft., 6 inches Weight (loaded): 2015 lbs.

Crew: One Armament: twin fixed, forward-firing Vickers

MGs plus four 25-lb bombs Maximum Speed: 119 mph. Engine: 230-hp Bentley B.R.2 rotary Game Value: 18 pts.



Siemens-Schuckert D.IV

This tough, maneuverable bird with a very high power-to-weight ratio had a truly incredible rate of climb. But the D.IV arrived too late at the front and in too few numbers to restore Germany's declining fortunes in the air.

Wingspan: 27 ft., 5 inches

Length: 18 ft., 8.5 inches Height: 9 ft., 2.25 inches Weight (loaded): 1620 lbs.

Crew: One Armament: twin fixed, forward-firing Spandau

MGs

Maximum Speed: 119 mph. Engine: 200-hp Seimens-halske Sh IIIa rotary

Game Value: 18 pts.



A prototype won the design competition for single-seat fighter in january 1918 and reached the front only four months later. Advanced features included a thick-section cantilever wing, fuselage of welded steel tubing, and automobile radiator. These combined to give the D.VII excellent high-altitude maneuverability and strong resistance to damage combined with a docile handling quality.

Wingspan: 29 ft., 3.5 inches Length: 22 ft., 11.5 inches Height: 9 ft., 2.25 inches Weight (loaded): 2112 lbs.

Crew: One

Armament: twin fixed, forward-firing Spandau

MGs

Maximum Speed: 125 mph. Engine: 185-hp BMW IIIa inline Game Value: 17 pts.

1



Bristol F.2B

The two-seater "Brisfit" was fitted with a Rolls-Royce Falcon, conferring a performance superior to that of many single-seat contemporaries. It had been designed as a conventional fighter with the addition of a sting in the tail. Judged the best general-purpose aircraft of the First World War, the type remained in RAF service until 1932.

Wingspan: 39 ft., 3 inches

Wingspan: 39 ft., 3 inches Length: 25 ft., 10 inches Height: 9 ft., 9 inches Weight (loaded): 2848 lbs. Crew: Two

Armament: one fixed, forward-firing Vickers MG and one or two Lewis free-firing MGs plus up to 12 25-lb bombs

Maximum Speed: 123 mph. Engine: 275-hp Rolls Royce Falcon III inline

Game Value: 18 pts.

Spad S.13

By 1918, the Spad 13 was the standard French fighter, having succeeded the smaller and less powerful S.7. It was strong and fast, although less maneuverable at heights than its German contemporaries. It was to be built in large numbers under American license had the war continued for the fledgling U.S. Air Corps.

Wingspan: 26 ft., 11 inches Length: 20 ft., 8 inches Height: 7 ft., 11.5 inches Weight (loaded): 1815 lbs.

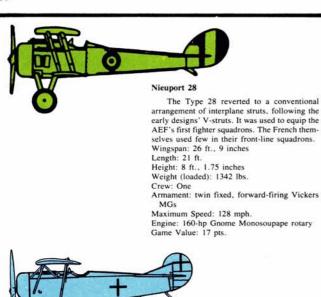
Crew: One Armament: twin fixed, forward-firing Vickers MGs

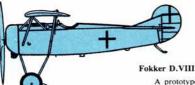
Maximum Speed: 130 mph.

Engine: 200-hp Hispano Suiza inline

Game Value: 18 pts







A prototype emerged victorious from the second German fighter trials in April 1918. The high cantilever wing gave excellent downward visibility and overall performance was sufficiently impressive for the type to be ordered into production immediately. By the time it reched the front lines, however, the war was almost over. Wingspan: 27 ft., 3 inches

Length: 19 ft., 5 inches Height: 9 ft., 4 inches Weight (loaded): 1331 lbs.

Armament: twin fixed, forward-firing Spandua

Maximum Speed: 125 mph Engine: 110-hp Le Rhone rotary

Game Value: 18 pts.



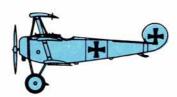
Sopwith F.1 Camel

The Camel was the first British fighter fitted with twin synchronized Vickers MGs, and the hump enclosing the breeches gave the plane its popular name. The plane demanded careful handling, but was a formidable weapon and accounted for more kills than any other type in the First World War.

Wingspan: 28 ft. Length: 18 ft., 9 inches Height: 8 ft., 6 inches Weight (loaded): 1482 lbs.

Armament: twin fixed, forward-firing Vickers

MGs and four 25-lb bombs Maximum Speed: 104 mph. Engine: 130-hp Clerget rotary Game Value: 17 pts.



Fokker DR.I Triplane

The success of the Sopwith triplane led to rash of German imitations. In the hands of skilled pilots such as von Richthofen, the Dr.1 was initially very successful, but two fatal accidents resulting from structural failure led to a loss of

confidence in the plane. Wingspan: 23 ft., 7 inches Length: 18 ft., 11.2 inches Weight (loaded): 1290 lbs.

Crew: One

Armament: twin fixed, forward-firing Spandau

Maximum Speed: 97 mph Engine: 110-hp Le Rhone rotary Game Value: 17 pts.

b. The scenario ends when all aircraft of either side have exited the mapboard or been removed from play.

c. Lineup

1. Allied Side:

Spad 13-starting hex 2229, nose pointing north, altitude 9530 ft., experienced pilot

Spad 13-starting hex 0937, nose pointing northeast, altitude 10133 ft., novice pilot

German Side:

Siemans-Schuckert D.IV-starting hex 1610, nose pointing south, altitude 10000, ace pilot

13. Artillery Spotting

As artillery became ever more an important factor of the war, as both sides tried by brute force to blow a hole in the enemy lines during 1919, many artillery spotting missions were laid on. Indeed, during the autumn of 1919, the greatest artillery concentration in history was undertaken by the British Fifth Army in an attempt to end the stalemate in Belgium. As so often, here one of ubiquitous Brisfits, escorted by an aging Camel, meet with resistance over the front near Mons. Of course, the German air corps by this time had been driven to such extremes as to put up even outdated aircraft flow by novice pilots.

- a. Use the victory point awards listed under Victory Resolution (page 15 of the rulebook). The Allied side, in addition, receives 2 victory points each turn the Brisfit passes through either hex 1805 or hex 0615.
- b. The scenario ends when all aircraft of either side have exited the mapboard or been removed from play.

c. Lineup

Allied Side:

Bristol Fighter-starting hex 1925, nose pointing north, altitude 15643 ft., experienced pilot, ace observer

Sopwith Camel-starting hex 2128, nose pointing north, altitude 15152 ft., experienced pilot

German Side:

Fokker Dr.I-starting hex 2307, nose pointing south, altitude 13964 ft., experienced pilot

Fokker Dr.I-starting hex 2305, nose pointing south, altitude 13964 ft., novice pilot

Fokker D.VII-starting hex 0213, nose pointing southeast, altitude 21114 ft., experienced pilot

14. Bombing Mission

In the wake of the American offensives of the summer, the German command launched virtually every two-seater available to interdict the transport lines. Their successes helped prolong the war. Nowhere was their operation more dramatic than against the bases and supply dumps of the AEF. Flying round-the-clock raids, the Germans, with the heavy twoseaters of the Schlachtstaffeln, also scored impressive victories in the air against the Americans. Flying a Halberstadt Cl.II, Vizefeldwebel Friedrich Huffzky and Gottfried Eisenmenger of Schlasta 15 shot down nine enemy aircraft in July and August; while Georg Gund and Karl Regen claimed four in one mission on 6 August! This scenario depicts one of Huffzky and Eisenmeyer's many brushes with the Americans.

- a. Use the victory point awards listed under Victory Resolution (page 15 of the rulebook). In addition, the German side receives 7 victory points for each Halberstadt that passes through hex 2736 at an altitude 10000 feet or lower.
- b. The scenario ends when all aircraft of either side have exited the mapboard or been removed from play.

c. Lineup

Allied Side:

Nieuport 28-starting hex 0434, nose pointing northeast, altitude 8700 ft., experienced pilot

Nieuport 28-starting hex 0535, nose pointing northeast, altitude 8700 ft., experienced pilot

Halberstadt Cl.II-starting hex 0810, nose pointing southeast, altitude 12586 ft., ace pilot, ace observer

Halberstadt Cl.II-starting hex 1009, nose pointing southeast, altitude 12586 ft., experienced pilot, novice observer

THE FIELDS OF BELGIUM

Wellington & Bonaparte: The Captains Meet

By Elwood Carlson

This article completes a series of three on the WATERLOO game system—the previous pieces appeared in Vol. 15, No. 4 and Vol. 17, No. 2—which together recreate Napoleon's final campaign. A complete revision of the 2nd Edition rules, including a new CRT and rules for stacking, movement and combat, brings this classic to life as you've never seen it before. Whether you play one of the three scenarios or the revised version of the whole campaign, we are sure you'll enjoy it.

For more than two decades, wargamers have been making the journey back a century and a half to that fateful week in June of 1815. In one hundred days leading up to that week, Napoleon Bonaparte had electrified the civilized world. Returning from presumed oblivion, he resurrected his Empire in one short springtime. By summer, he actually was on the offensive again with an army of more than a hundred thousand veteran soldiers.

Time after time, we have joined the combatants for the climactic last three days of this amazing bid for an imperial comeback by playing Avalon Hill's WATERLOO. It was one of those early releases which today are labelled "classics". To me, this label means that the game treats a supremely famous moment in history, when the fates of nations hung by a thread on a single battlefield. Such moments possess an intrinsic fascination. No game becomes a "classic" without such a focus. But a game like WATERLOO is more than a focus on a critical moment in military history. To this are joined the other hallmarks of the "classics": simplicity of rules, clarity or basic strategies, and victory conditions designed to force players into immediate, head-on conflict. These basic concepts laid the foundations for a whole generation of simple, fastmoving and well-balanced games.

However, there is another meaning which also goes along with the "classic" label. The classics often distorted the events they tried to capture in the interests of one or more of their hallmark features. Some games had more such problems than others. In WATERLOO there are all sorts of oddities. People have complained over the years about inaccurate starting positions, inconsistent representations of different units' combat strengths, awkward catergories of combat results, roads and towns missing from the mapboard, forests in the wrong places, hills of the wrong shape and size, and a whole host of others.

Still, the single most important ingredient of all the Avalon Hill classics is the excellent choice of focus, the "supremely famous moments" on which they center. It is the selection of a topic which makes the contrast between "games" and "simulations" a false dichotomy. The actual historical events modelled by WATERLOO and the other classics were themselves situations balanced on the razor's edge. "Play-balance" is built into these games by selecting such moments in history. The battle of Waterloo remains the most crucial and dramatic moment in the wars of Napoleon, and arguably in the history of armed conflict. The magnificance of the spectacle, the heroic figures involved, the appalling slaughter, and the world-shaping consequences of that single battle seldom have been equalled. It forms one of the greatest topics for a classic wargame which can be imagined.

Such, at least, were the feelings which led to a protracted attempt to remedy some of the major problems of this Avalon Hill classic. Unlike the approach of John Edwards to the WW2 classics (STALINGRAD and D-DAY), these years for me have not produced a different game with a new name, new counters, new board, new rules. Instead, the original physical components have been incorporated in a new system of game mechanics to solve these problems.

Early results in this long process were much revised scenarios for the WATERLOO game. "Crossing the Sambre" (Vol. 17, No. 2) begins a day earlier than the original game; it reveals the maneuvers by which Napoleon produced the setup on the morning of June 16th we have all come to know so well. "East of Waterloo" (Vol. 15, No. 4) recreates Marshal Grouchy's ill-starred pursuit of the retiring Prussians with one-third of Napoleon's Grande Armee. It ends as any successful Prussians cross the LaLasne River on the afternoon of the 18th to write the dramatic closing scenes of the battle of Waterloo itself.

In both of these earlier articles, the twin goals were to expose more of the actual campaign to gamers so they could weigh for themselves some of the command decisions actually made, and through some hesitant meddling to try to bring the mechanics of play a little more into harmony with the actual tactical problems on a Napoleonic battle-field. Both of these aims reach their culmination in this final installment.

NAPOLEON AND THE IRON DUKE

First of all, there is the matter of the third and final scenario, pitting Napoleon and part of his army against the allied forces under the Duke of Wellington. In previous articles, two other scenarios traced the French offensive in terms of what may be described as a "Y-shaped" advance. On June 15, the French army moved north on an axis running roughly from Charleroi to Saint Armand. On the 16th, major battles were fought there and at Quatre Bras. On the 17th and 18th, Marshal Grouchy took about a third of the Grande Armee and marched northeast. He traced out the upper right arm of the "Y", ending at Wavre unable to help Napoleon at Waterloo.

In this scenario Napoleon takes the remainder of his army, including the Imperial Guard, and steps off the upper left arm of that "Y" on his way to famous battlefield. The scenario takes place chiefly on the northern half of the mapboard, excluding all hexes east of and including the diagonal row Y21 to H37. This playing area is the complement of that used in "East of Waterloo".

As discussed in that earlier article, Napoleon was uncharacteristically slow and indecisive in his actions on the morning of June 17. With the last rays of the setting sun on the preceding day, his troops finally had driven the Prussians from the field at Ligny. Marshal Ney had been less successful in his bid to capture the Quatre Bras crossroads and cut communications between Blucher and Wellington. This scenario, as the order of appearance shows, gives gamers a chance to discover how differently the 17th and 18th of June might have unfolded if the French had pursued the advice of several of Napoleon's Marshals and had struck at the Anglo-Allied positions at Quatre Bras with the first light. However, given the late French start, the events of June 17 unfolded as follows.

The Duke of Wellington awoke in the town of Genappe. While dawn still colored the sky, he arrived on the heights south of Quatre Bras to survey the field where the French had been driven back the preceding day.

A patrol of cavalry was dispatched down the turnpike toward Namur to ascertain the location of the Prussian army. Instead, they ran into French pickets and returned with the news that the Prussians had been defeated and were retreating north to regroup at Wavre. (It is interesting that Wellington was aware of this so early, while Grouchy continued for the rest of the day to think the Prussians had withdrawn east towards Namur.)

The Iron Duke saw at once that his position at Quatre Bras was too exposed and open to flanking attack from the east to be defensible. With his customary caution, he at once dictated orders for distant units to concentrate on Waterloo instead, and for the forces at hand to begin a gradual withdrawal there. The British division led by General Alten and the troops of the slain Duke of Brunswick acted as rearguard, the last forces to withdraw northward along the high road.

It was at about this time that Napoleon was telling Marshal Grouchy to take 30000 men out of the Grande Armee and set off on his wild goose chase along a mistaken course in pursuit of the Prussians. Finally, about noon, Wellington saw the sun glittering on a massed formation of advancing French. This heavy cavalry soon engaged forward British cavalry. The pursuit was on. More French units could be discerned advancing from the east as well as from the south, but the main body of Wellington's infantry already was across the Genappe and still moving north. A screen of cavalry commanded by the Earl of Uxbridge protected the rear.

This covering action has gone down in history as a model for withdrawal in the face of an enemy. The cavalry regiments leap-frogged past each other in short steps, pausing to confound the French advance whenever an opportunity presentd itself. Owing to the heavy rains which drenched the area beginning in the early afternoon, the main bodies of the two armies were limited to marching north along the turnpike heading for Brussels.

Midway through the afternoon, the French cavalry in the vanguard of the pursuit had chased the last Anglo-Allied forces across the Genappe and had occupied the town itself. There they were stymied in their advance by a thundering charge of Somerset's heavy Guards cavalry; so the French advance north of the river proceeded even more cautiously.

By nightfall, most of Wellington's available forces had converged on the low ridge in front of Mont Saint Jean, and the Duke went to sleep at Waterloo. The head of the French columns came up to the positions that evening. More and more French regiments arrived on the scene as night fell, but some bivouacked as far away as Genappe. Napoleon spent the night in a farmhouse at Caillou, north of Genappe toward the battlefield. The soldiers in the ranks on both sides bedded down as best they could in the mud and pouring rain, knowing that the next day would bring a battle of immense proportions.

Since the battle of Waterloo itself (which took place the next day) is recreated in detail in a later section of this article, this brief narrative may cut off with nightfall on the 17th. Actual play of this scenario will probably not follow the historical events. Several major reasons for this can be spotted easily. As Napoleon, you are not likely to dally for an instant in attacking half the forces of Wellington with two-thirds of your own army. As the day

wears on the British only get stronger, while the French get no reinforcements. As Wellington, you will not be confined by a downpour of rain to slog north along the one decent road. You will be able to fan out your army and defend forward river lines such as the Genappe, which was out of the question given the actual weather on that day.

Indeed both players will see for themselves just how crucial weather could be in battles of this era. The contrast between the free-wheeling maneuvers you execute on the game board and the dull plodding on the Brussels high road which actually took place will be very great.

In Napoleon and the Iron Duke then, the most likely evolution of play might be an early thrust foward by the French, seizing the Quatre Bras crossroads from a smaller British force. Next might come a swing to the west, flanking the Genappe River to force the British army out of its fortress-like position centered on Genappe. This presents the French player with something of a dilemma. In swinging around this nasty terrain, one advances straight into British reinforcements, thereby coming against them earlier in the day. Two steps forward; one step back. You will have to weigh the tactical advantages yourself.

If play is successfully maneuvered into the great open expanse between Nivelles and the north board edge, the French player will have a better chance of pushing back the British army and winning the game. To win this scenario, the French player must exit five infantry divisions and one artillery battalion off the board through either the Brussels road or the town of Hal. Brussels was not the only possible French target, as anyone who has played NAPOLEON is acutely aware. The Grande Armee could also strike for Antwerp. A successful march through Hal would be the first step in that direction. To win, Wellington must hold both Hal and Mont Saint Jean at the end of the game, and must outnumber the French in combat factors on the board. If neither player meets their victory conditions, the game is a draw. (If the French meet their victory conditions, the British conditions are disregarded.) The scenarios ends with darkness on June 18th.

Like the two earlier articles, this third scenario offers a fresh approach to one major segment of Napoleon's final campaign. As noted, gamers probably will not recreate the actual events of June 17th and 18th. As a peace offering to the historical simulation fanatics out there, three short encounters or "mini-scenarios" are presented here also. The first of these recreates the battles of Quatre Bras and Ligny, fought simulatneously on June 16th; either "half" of this mini-scenario also might be fought separately for a yet more compact game. The second mini-scenario allows players to re-live Wellington's famous withdrawal, screened by his cavalry, from Quatre Bras to Mont Saint Jean on June 17th. The third and most dramatic mini-scenario is a recreation of the set-piece battle of Waterloo. For a fan of the Napoleonic era who hasn't got all day to play a game, these short re-enactments offer a challenging, enlightening glimpse of military history as it was made.

Driving the Prussians Back

In some respects, this first mini-scenario overlaps my previous article, "East of Waterloo". However, it concentrates more exclusively on the battles of June 16th and is meant to conclude at the end of that day. As a result of playing this scenario, the Prussian army and the main body of the French will likely be in slightly different positions than those specified in "East of Waterloo". However, if players are stringing all the scenarios together in a Campaign Game, you may wish to use the positions of the forces at the end of this mini-scenario of June 16th for the starting positions for "East of

Orders of Battle and Appearance for NAPOLEON & THE IRON DUKE

SITUATION-7 am on June 17, 1815

This chart lists all the units that are in play at the start of the scenario, and all the Anglo-Allied units that enter as reinforcements. Players must place these units as indicated.

French Army

At Start:	
Reille HQ, Jerome, Roussel, II Artillery	DD26
Kellermann HQ, Foy, L'Hertier, II Horse Artillery	DD25
Ney HQ, Bachelu, Pire	DD24
Girard	GG19
D'Erlon HQ, Alix, I Artillery	FF22
Donzelot	GG21
Marcognet	GG22
Durette	HH21
Jacquinot, I Horse Artillery	EE21
Duhesme, I Guard Horse Artillery	GG17
Morand, Desnouettes, III Cav Artillery	EE15
Mortier HQ, Napoleon HQ, Friant, I Guard Artillery, Guyot	EE14
Lobau HQ, Simmer, VI Artillery	GG13
Jeanin, VI Horse Artillery	HH13
Mihaud HQ, Wathier, IV Cav Artillery	DD13
Delort	DD12

Anglo-Allied Army	
At Start:	
Cooke, Sandham, Kulhman	AA27
Orange HQ, Picton, Heise	AA26
Alten, Williamson	AA25
Brunswick, Moll, Heinemann, Brunswick Cav	Z25
Perponcher, Opstal, Gey, Trip, Ghigny	Y25
Chasse, Lux, Khrahmer, Merlen	W28
Wellington HQ, Uxbridge HQ, CavBatts, Somerset, Ponsonby	Quatre Bras
Vivian, Vandaleur	X25
Grant, Dornberg	X29
Estorff, Arenschild	V28
Wissel	S31
Clinton, Balton, Sympher	Nivelles
1 pm, June 17:	
Hill HQ, Anthing, Stedman, 1st DB Artillery	C57
Cole, Bruckmann	U48
5 pm, June 17:	
Colville, Hawker	C57
Bennigsen, Beaulieu, Bodecken	A45

Waterloo' instead of those published in my original article. If so, be sure to remove all units except those specified in that order of battle. The scenario may then be played normally, without any changes in victory conditions. (Note that the optional rules and unit designation changes in that article have been superceded here.)

In the same way, ending positions in "Driving the Prussians Back" can be used as a starting point for "Wellington Withdraws", the second miniscenario presented below, or for "Napoleon and the Iron Duke" above. In the latter case, however, the I Corps will need to be added to the board within two hexes of Gossellies at the same time as the French units from "East of Waterloo" are removed from play. Again, play "Napoleon and the Iron Duke" as described except for these altered positions.

Ney's left wing of the French army was assigned to drive forward along the Brussels road on the 16th, taking the crossroads at Quatre Bras and cutting lines of communication between Blucher and Wellington. At his disposal were Kellermann's III Corps of reserve cavalry and Reille's crack corps of veterans. D'Erlon's corps, suffering from unacquainted officers and other problems, had gotten

hopelessly delayed and took no part in the actions of the June 16. Girard's division had been detached from Reille and saw no action at Quatre Bras. The Anglo-Allied forces begin with a motley crew of Dutch and Belgian units, including Chasse's troops whose basic tactic was to run away at the first sight of French regulars. By the time the battle got underway in the afternoon, however, British regulars including Cooke's guards were on the scene and made it a very tough day for Ney.

Further to the east, Napoleon also launched an afternoon battle against Blucher, who had been forced to form up and give battle or be pushed further and further away from his Anglo-Allied allies. This was the scene of the main action of that day, in which Napoleon had to apply a heavy dash of Imperial Guards in the late evening to finally drive the Prussians back from their positions around Ligny.

For starting positions in this scenario, Wellington should be placed in W31 along with Alten, Williamson and Wissel. Chasse, Lux and Krahmer are placed in X27, and should be *routed* at the beginning of the game. (A rally attempt must be made to keep them in the game at the start of the first PAA turn.) Cooke, Sandham and Williamson

are at Z28. Perponcher, Opstal, Gey, Trip and Ghigny stand at AA27; and the Duke of Brunswick holds AA26 with Moll. Heinemann and the Brunswick cavalry. Finally, Picton and Heise are in AA25. All these units should be facing south at the start of play.

The Prussians' nearest units were Marwitz in DD20 and Thumen in EE18. Then follow Langen in DD18, Brause in CC18, and Tippleskirchen, II horse artillery and Sohr in FF17. Pirch HO, Krafft, II artillery and Schulenberg are in FF16. This marked the edge of the II Prussian Corps. Immediately on their left, the I Corps begins with Blucher's HQ, Zeiten's HQ, Jagow, I artillery and Treskow's cavalry in FF15. Henkel and Lutzow stand in EE15. Pirch II and the I horse artillery are in EE14. Steinmetz alone holds DD16. Finally the III Prussian Corps begins with Stulpnagel in DD13, then Thielemann's HQ with Borcke and III artillery in DD12. Put Luck, the III horse artillery and Lottum in FF10. Poor Kampfen was left with the uneviable task of anchoring the eastern flank of the Prussian army all by himself. All the Prussian units are facing south at the start of play (except Marwitz, Thumen and Luck who are facing southwest).

Ney's left wing begins in CC26 with the Ney HQ, Jerome, II artillery and Pire's cavalry. Reille's HQ is on the march along with Foy, II reserve horse artillery and Roussel in CC25; followed by Kellermann's HQ, Bachelu and L'Heritier in CC24. The II corps horse artillery is in EE21, and Girard (detached) in GG18. Girard and the horse artillery should be facing northeast, and the rest of Ney's forces facing north.

The Imperial Guard begins with Duhesme and the Guard horse artillery in II16. Then the III Corps intervenes: Berthezene and the III Corps artillery in HH15; Vandamme's HQ, Habert, the III horse artillery and Dumont in HH14; and Lefolin in II14. The placement of the IV Corps puts Vichery and the IV horse artillery in HH13 and Hulot in HH12. Then comes Gerard's HQ, Pecheux, the IV artillery and Morin in GG13. Next in line stood Lobau's HO. Simmer and the VI artillery in JJ12; Jeanine and the VI horse artillery in JJ11; Teste in JJ10. At last we encounter the rest of the Imperial Guard, with the Mortier HQ, Friant's Old Guard, the Guard cavalry of Guyot, and the Guard artillery in GG11. Put Desnouette's cavalry in GG11, and Napoleon himself in HH11 with Morand's middle guard.

Out on the eastern flank of the French army, Stroltz forms in II10, with Chastel and Excelmans' HQ in II9 supporting. Completing the army's lineup was Pajol's HQ and Soult in JJ8; put Subverie in II7

Such were the positions taken up by the three commanders by mid-day on the 16th. Ney surged forward, but was held at bay all through the afternoon and never accomplished his goal of taking Quatre Bras. Napoleon fared only a little better, committing more and more of his army against the Prussians but not breaking through their sometimes ill-advised formations. In the end, he had to drive the Imperial Guard straight through the middle of the field of exhausted combatants with the last light of day, and so opened a lane for his cavalry to pour through and attack the Prussians in flank and rear, finally driving them from the field of battle.

This mini-scenario begins with the 1PM turn and lasts for four turns. To win, a player must control two of three towns: Quatre Bras, Ligny, Tilly. Control of all three is regarded as a decisive victory.

Wellington Withdraws

The at-start positions of this scenario reflect the formations actually used by the Iron Duke for his withdrawal to the north edge of the mapboard area. The scenario begins with the 1PM turn on June 17th. The French are pressing down at last on the British cavalry screen as the Anglo-Allied army marches

north along the turnpike. It ends four turns later, after a 7PM game turn not shown on the Turn Record Card. The main body of the Anglo-Allied army is represented by the Orange HQ and Alten's infantry division, which start in hex T30. These forces are the rearguard of the army, and must move north along the road to Mont Saint Jean by nightfall. If then either counter of this force is south of Row K at the end of the 5PM turn, the French player receives five victory points. The Anglo-Allied units start on the mapboard as follows: Vivian and Vandaleur (X25); Uxbridge HQ, CavBatts, Somerset and Ponsonby (X27); Grant and Dornberg (X29); Estorff and Arenschildt (V28); Orange HQ and Alten (T30).

The French pursuers enter play between hexes Y24 and Y27, inclusive, as follows: Pire and II horse artillery, Wathier and IV Cav artillery, Ney HQ, Roussel and III Cav artillery at 1PM; Jacquinot and I horse artillery, L'hertier and Delort at 3PM. In addition, the Napoleon HQ and the infantry division of his cousin Prince Jerome (II Corps) appear in the same hexes in the 3PM turn. This force represents the vanguard of the French army and must press forward along the turnpike to Genappe. If Jerome is not in or north of Genappe by the end of the French half of the 7PM turn, the Allied player receives five victory points.

Besides victory points based on tardiness by the two main armies, each player receives one victory point each time an enemy unit "breaks" in combat, and two more points for each enemy unit which fails to "rally" and so is eliminated from play. (If these combat results sound a little unfamiliar, hang on until you have read my revised rules for play!)

At the conclusion of the 7PM turn, the French player receives one victory point for each French cavalry or horse artillery unit north of (not including) the Genappe River and east of a north-south line through T33. (For example, a unit in S34 would not count; a unit in P33 would.) The PAA player receives one point for each French counter, including HQs, which is still south of the Genappe River or in hexes containing that river.

This short scenario does not provide for extravagant sweeps across the board with vast piles of troops. Instead it does furnish a rare taste of some lesser-known but often crucial facts of life facing a Napoleonic army. Many players will be truly startled when they come to grips with the dramatic effects of weather on an army's ability to maneuver. This problem is not overemphasized in this scenario, despite the following special rules, which apply *only* to this mini-scenario.

Weather: There is *no* road movement bonus at all, and all units move at a rate of only two hexes per turn off the roads. That is, each hex of off-road movement costs half a unit's normal movement allowance. That this is realistic is reflected by the numerous accounts of cavalry horses floundering up to their withers in water and mud on that afternoon of 17th June (where the board shows clear terrain) as their riders tried to come close enough to try to fight. The incredible downpour of rain which began shortly after noon had a terrific effect on the passability of the already soggy Belgian lowlands.

This scenario involves a very small number of pieces and only four turns. In addition to being an interesting recreation of a famous moment, it provides a useful introduction to playing WATERLOO using these rules.

The Battle of Waterloo

The night of June 17/18 was miserable. For a while, rain continued to pour down on men and animals as they huddled in the darkness and tried to sleep in the open fields. By morning on the 18th, however, the storm had dissipated to be replaced by great masses of drifting cloud. These two vast

assemblages of men began to form up and prepare for their final showdown.

The lines of the two armies were only about a thousand yards apart, within cannon-shot of one another. Getting everything into position over the soft and miry ground took the French the better part of the morning, crowned by Napoleon's inspection of the whole line—drawn up and ready for battle.

So here we are at last. Probably in all the times anyone has played the game, the *historic* battle of Waterloo has hardly ever occured. Under the old rules, this was because the appalling slaughter which inevitably happened at the natural "Maginot Line" of forests, rivers and hills centered on Quatre Bras killed off most of the divisions in all three armies. Together with my new rules, this mini-scenario allows you to choose your side and slug it out, face-to-face, just as the most famous generals of their nationalities did.

The French army was drawn up in three main lines, one behind another. The first two have been stacked togther in this setup, since they were so close they would have been in the same hexes. It is very enlightening to observe that the resulting stacks of units correspond not only with the actual arrangement of Napoleon's army, but also fit virtually perfectly with the new, revised rules on stacking.

The left wing of the French army begins with Jerome, Pire and II horse artillery at L41. Then follows Foy, Roussel, III Cav artillery and Reille's II Corps headquarters in L40; and Bachelu, L'Hertier and II artillery in L39. The right wing forms up with Donzelot, Delort, I artillery and D'Erlon's HQ in L38; Alix, Wathier and IV Cav artillery in L37; Marcognet and I horse artillery in L36; and Durette and Jaquinot in L35. Behind this imposing line-up, the French reserve includes Friant, Guyot, I Guard artillery and the Guards HQ in M38; Morand, Desounettes and I Guard horse artillery in N37; Duhesme in N38; Napoleon himself in M37; Simmer, VI artillery and the VI Corps HQ in N36; and Jeanin and the VI horse artillery in O35. Note that Gerard's division of the II Corps was left behind to recover from being mauled at Quatre Bras, and Tarte's division from the VI Corps was with Grouchy in his ill-starred pursuit of the Prussians.

Opposing this Imperial steamroller is an equally bristly-looking line of Anglo-Allied units. In the front line we find Perponcher, Opstal, Gey, Vivian and Vandaleur in J37; Cole, Bruckmann, Ponsonby and Ghigny in J38; Picton, Heise and Somerset in J39; Alten, Williamson, Grant and Dornberg in J40; Cooke's guards, Sandham, Kuhlman and Arenschildt in J41; and Chasse, Lux, Krahmer, Trip and Merlon in J42. Behind them, the Prince of Orange's HQ is in I40. Wellington, Uxbridge, Wissel, Kruse, the Cavalry Batt and Estorff are in H40. Brunswick, Moll, Heineman and Brunswick Cavalry are in H42; Clinton, Balton and Sympher are in I42. In addition, Anthing, Stedmann and the 1st Dutch-Belgian artillery are waiting in the wings at H50 in case the French try to go around that flank.

Once these units are all in place, it only remains for you to set them in motion and watch the clouds of smoke obscure that part of the mapboard. In the actual battle, first the left wing of the French rolled forward and got bogged down. The right wing followed up with a second attack as the afternoon progressed and also was fought to a standstill. With the whole line thus engaged, Napoleon prepared to send the Imperial Guard straight up the middle and crack the whole British position wide open. This ploy usually worked.

But then the Prussians began showing up off to the east, soaking up French reserves to block them. The Guards, instead of marching straight up the road and striking the center of the Anglo-Allied line, veered off on a diagonal towards the left (all sorts of reasons for this have ben suggested). Their march across to the enemy thus took far longer than it should have, and also allowed British artillery partial enfilade shots into their advancing ranks, causing much destruction. When the attack finally struck home, it fell on the British Guards, who stood fast and, too everyone's amazement but their own, hurled the vaunted French Guard back down the slopes. In the four stages of the battle corresponding roughly to the game turns of this mini-scenario (11AM through 5PM on the 18th June), Napoleon had "cold dice". It's up to you to see if you can improve on his results.

While "Wellington Withdraws" was above all a scenario revolving around the tactics of movement and position, this mini-scenario is nothing but a straightforward, toe-to-toe slugging match. Besides the insights it provides into the actual battle, it is an excellent and quick way to explore the my rules on combat (which are a radical departure from the original system). To give the French a chance, the Prussians are left out. Victory conditions are very simple. To win, a player must occupy two of three hexes at the end of the 5PM turn—Mont Saint Jean, Braine la Leude, and the village of Waterloo itself. Thus, the burden of attack rests squarely with the French player, and Wellington must conduct the defense he had planned the morning before.

NEW RULES FOR AN OLD FRIEND

With all the above possibilities for play, the new rules already mentioned become the next order of business. Gone are the one or two "Optional Rules" put forward as piecemeal revisions in my earlier articles. The inevitable conclusion finally was reached. A wholesale rewrite was needed. The decision to resolutely rework the whole business has ended with a new version of rules for the original board and counters (the idea of revising counters, mentioned in "Crossing the Sambre" has been abandoned) which I call the Scenario Edition of the WATERLOO rules. This edition is meant to replace earlier revisions suggested in two other articles and to be used in playing all three of the scenarios outlined in this series of articles.

Though these rules actually are no more complicated than the original rules, their use produces a drastic change in the play of the game. Some explanation and illustration is vital in coming to terms with them. In the following sections, separate consideration will be given to unit counters, to stacking, to facing, to terrain effects on movement, to morale, to a new combat results table, and to combat result modifiers.

1. Unit Counters

Unit types are more completely identified in this version of the rules. The basic distinctions between infantry, cavalry, headquarters, horse and foot artillery are preserved unchanged. In addition, units are now classed as Guards, Regular Line and Landwehr (militia). The "Landwehr" designation will be used in these rules rather than "militia" since the majority of those units are found in the Prussian army.

French Guards include all units in the Imperial Guards Corps (only infantry and cavalry units count as "Guards" for modifying combat, but all so designated are "Guards" for morale checks). The French have no militia units; all others are considered Regular Line. The British Guards include Cooke (infantry), Sandham (artillery) and Somerset (cavalry). The only Landwehr in Wellington's army are the three Hanoverian brigades: Bennigsen, Bodecken and Beaulieu. On the other hand, the Prussian army has no Guard units. The Prussian Landwehr units number Luck and Stulpnagel (infantry), and Lutzow, Lottum, Sohr, Schwerin and Watzdorf (cavalry). Militia regiments also were mixed in with regulars in several British divisions, to "fortify" the militia and place them under close control of regular commanders. Instead of labeling the whole division as Landwehr in such cases, basic morale was lowered one point in these. As in WAR

COMBAT RESULTS TABLE

Roll two dice. Apply all appropriate combat modifiers. Cross-referencing the combat value odds (shown attacker/defender) with the modified die roll, find the result of the combat, shown as Attacker/Defender (A/D). Apply these results to each participant in the combat.

ODDS					DIC	E RO	OLL				
	2	3	4	5	6	_7_	8	9	10	11	_12_
1-6	B/C	B/C	B/C	B/C	B/C	B/C	B/C	B/S	R/C	R/C	R/C
1-5	B/C	B/C	B/C	B/C	B/C	B/C	B/S	R/C	R/C	R/C	R/S
1-4	B/C	B/C	B/C	B/C	B/S	B/S	R/C	R/C	R/S	R/S	R/S
1-3	B/C	B/C	B/S	B/S	R/C	R/C	R/S	W/C	W/S	S/W	S/W
1-2	B/S	R/C	R/C	R/C	R/S	R/S	W/C	W/S	S/W	C/W	C/W
2-3	R/C	R/C	R/S	W/C	W/C	W/C	W/S	S/W	S/W	C/W	C/W
1-1	R/C	R/S	W/C	W/C	W/S	W/S	S/W	S/W	C/W	C/W	S/R
3-2	R/S	W/C	W/C	W/S	W/S	S/W	S/W	S/W	C/W	S/R	C/R
2-1	R/S	W/C	W/S	W/S	S/W	S/W	C/W	C/W	S/R	S/R	C/R
3-1	W/C	W/S	W/S	S/W	S/W	C/W	C/W	S/R	C/R	C/R	S/B
4-1	W/S	S/W	S/W	S/W	C/W	C/W	S/R	C/R	C/R	S/B	S/B
5-1	S/W	S/W	C/W	C/W	C/W	S/R	C/R	C/R	S/B	S/B	C/B
6-1	S/W	C/W	C/W	C/W	S/R	C/R	C/R	S/B	S/B	C/B	C/B
7-1	C/W	C/W	S/R	C/R	C/R	S/B	C/B	C/B	C/B	C/B	C/B
8-1	S/R	C/R	C/R	C/R	S/B	C/B	C/B	C/B	C/B	C/B	C/B

Results:

- C =Contact (No Effect)
- S = Shaken (Check Morale)
- W=Withdraw (one hex)
- R = Retreat (Withdraw two hexes and Check Morale)
- B = Break (Withdraw two hexes and Fail Morale)

Note: Results of modification to the die roll may never result in a die roll greater than "12" nor less than "2". Odds less than 1-6 result automatically in a "B" for the attacker. Odds greater than 8-1 result produce overrun elimination of the defender during movement. Pay one extra movement point from each unit attacking and simply remove the defenders; movement may be continued.

& PEACE, all the different unit types are treated differently in both combat and morale situations.

These changes restore a key aspect of the real campaign to the game, and also resolve the oftencited problem of "under-valued" combat factors for the Guards. Now a combat point simply represents about a thousand men or a battery of cannon. Unit type differences now appear as modifiers to the dice roll in combat resolution and morale checks, instead of in the combat factor on a particular factor. Guards units cited should be indentified with a small "G" placed on the counter; Landwehr should be marked with an "L". This facilitates identification greatly.

2. Stacking

Under the old rules, you always knew what you were going to find in a stack. Fifteen strength points! Unit types made no difference. The number of commands required to operate together in a confined space made no difference. A dozen infantry divisions, totalling perhaps sixty thousand men, often could be found brawling over the Quatre Bras heights or some other battlefield on a front of barely three or four hexes, with no apparent crowding or untidiness.

This is absurd. In fact, Reille's II Corps had only three of its four divisions engaged there on the 16th,

with some support from artillery and Kellerman's cavalry; they stretched across this whole front and filled the very air with violence the whole way. These new rules (based on stacking unit types rather than combat factors) do much to take advantage of all the information Avalon Hill has provided on the counters and to increase the realism in the way forces are combined, deployed and used. Based on those "X"s and "I"s above the unit type designation, my rules essentially limit players to having two infantry Xs, two cavalry Xs and two artillery Is per hex. The largest possible Anglo-Allied stack would then total 14 factors (e.g., Picton, Estorff, Ponsonby and the Cav Batteries). The largest possible Prussian stack would have 18 combat strength points (Steinmetz, the I Corps artillery, and Thumen and Sohr for cavalry). The best possible French stack would total 17 factors (Friant, the Guards artillery and Guyot). However, these maximums only will be found in a few stacks. Most will be decidely smaller.

Besides bringing a wonderful dose of realism to resulting formations, these rules mean the only way to "pack more punch" into a given space on the line is through combined arms tactics, on which Napoleon based a great measure of his own success. To help reflect this, one set of combat modi-

COMBAT RESULTS MODIFIERS

I. Combined Arms Effects

Attacker chooses column; defender chooses row:

ATTACKING UNITS

		•		\boxtimes			•	
D E	•	0	+1	+1	+1	+1	+1	+ 2
F E		-1	0	0	0	+1	+1	+2
N D I	\boxtimes	0	-1	0	0	0	+1	+1
N G		0	0	0	0	0	+1	+1
U		-1	-1	-1	0	0	0	+1
N I	•	-1	-2	-1	-1	0	0	0
S		-2	-2	-1	-1	0	-1	0

Note: All units stacked in a hex must be attacked together. Attackers in one hex may divide attacks against different frontal hexes, and units from different hexes may attack together. All defending units adjacent to attacking units must be attacked (except under "cavalry impulses"). The attacking player defines each battle. All attackers in a battle must be able to attack all defenders. For the attacker, use the column above for *only* those units actually involved in the attack.

II. Unit Integrity Effects

Applies to Infantry and Cavalry only, for combat. Cross reference the listed unit types and apply appropriate modifier:

Attackers

	Friant	Other Guard	Regulars	Landwehr
Friant		-1	-2	-3
Other Guard	+1	0	-1	-2
Regulars	+2	+1	0	-1
Landwehr	+3	+2	+1	0

III. Elevation Effects

Choose one only if applicable:

All attackers above all defenders: +2
Some attackers above all defenders: +1
Some attackers below all defenders: -1
All attackers below all defenders: -2

Note: Slope hexes are at the same elevation as adjacent plain terrain. Hilltop hexes are above slope hexes. Hilltop hexes are not above adjacent plain terrain.

IV. Terrain Effects

Defender chooses one only if applicable:

All attackers fording river, all defenders on far bank: -2
All attackers fording river, any defenders on far bank: -1
Any attackers fording river, all defenders on far bank: -1
Any attackers fording river, any defenders on far bank: 0
Cavalry without infantry support attacking into forest: -1
All defenders in outlined town, no attackers in town: -1

Note: Fording units must be in defenders' ZOC to affect combat. All fording effects apply regardless of presence of bridges.

V. Facing Effects

Attacker chooses one only if applicable:

Any attacking unit on defender's flank: +1 for each flank

Any attacking unit on defender's rear: +2

fiers are based on what sorts of units stack and attack/defend together.

3. Facing

All units except broken troops always have a twohex "front", two one-hex flanks, and two rear hexes to watch. The frontal hexes are indicated by turning the unit so that its top corners touch each of those indicated spaces. After moving all units, the mover only adjusts facing of all his units (including those which did not move). After all attacks by one player (including any "second-impulse" cavalry charges) are resolved, both players may adjust the facing of any or all of their units.

Units stacked together, must all face the same direction. It is possible for units stacked and faced together to attack into different hexes, so long as the defending positions both fall within the frontal area of the attacking unit. Attacking units may not move to attack in such a way as to leave some enemy units adjacent but outside the frontal hexes—unless those enemy units are also being attacked by other friendly units.

4. Terrain Effects on Movement

A large change in these variant rules is that foot artillery may only cross rivers at bridges. This is quite a departure, but clearly supported by the events of the historic campaign. For example, it explains why Grouchy marched north and attacked the Prussians in their fortified position at Wavre. He needed a way to get his guns across the Dyle.

River fording for other types of units also changes to get rid of the "instant fording" ploy. For example, under the old rules an infantry division could begin at W26 near Quatre Bras and march as far as S26 in one turn, ending in a river hex; then, the following turn, the unit magically begins on the north bank of the Genappe and may proceed another four hexes to O27, another river hex. Despite crossing two rivers, the unit has moved as far in three turns as it would have over perfectly clear terrain. Under these new rules, each river hex costs just one point to enter, but two more if the unit wants to *cross* the river (assuming no road crossing or town).

[OPTIONAL: In addition to bridges in outlined towns, consider bridges over rivers at Tilly (Y15) and Ligny (FF13); players may wish to mark these on the board if using this rule.]

No unit may enter a forest hex unless it has three movement points remaining—one for the hex and two more for the trees. This does not apply to movement along forest-road hexes. This terrain cost is not cumulative to river crossings since it reflects time consumed by breaking formation and reforming units. A unit is disrupted only once no matter how many obstacles are found in a hex. An infantry or cavalry unit beginning in W40 could actually move through V41 and U42. Artillery would have to stop, since the big cannon cannot cross the river. (Artillery can attack an adjacent hex from the far side of the river in its own hex—for example, against an enemy in U24).

Finally, instead of the old bonus, road movement uses up movement points at a reduced rate. Movement "along the road" (as already carefully defined by Avalon Hill in the rules) costs half a point for primary roads and two-thirds of a point for secondary roads per hex entered. For example, T39 to U38 to U37 is not "along the road". Entering K38 from K37 costs two-thirds of a movement point. The more you move along a road, the less you may move off the road in that turn, and viceversa. At last, there is a reason for those secondary roads.

[OPTIONAL: Add the following road hexes to the map to correct ommissions in the original: Primary Roads—from GG22 northeast, extending the Roaman Road through GG21/FF21/FF20/EE20/EE19/DD19/DD18/DD17/CC17/BB17/BB16/AA16/AA15/AA14/AA13/Z13/Z12 and offboard toward

Hannut. From Charleroi south, extend the Charleroi turnpike through VV15/WW14/XX14 and off the board. Secondary Roads—from UU9 south, extend the road through VV9/WW9/XX8 and off the mapboard. From U36 northeast, extend the road through T36/S36/S35/R35/R35/R34/Q34/Q33/P33/P32/P31/P30/P29/029/028/N28/M28/L28/K28/J28/I28/H28/G28/F28 to join the road to Wavre (not crossing any rivers).]

5. New Combat Results Table

The real heart of this rules revision is the new CRT, with a whole new set of combat results based on totally different ideas about the effects of battle. There are 16 odds columns in place of 11, capturing a wider spectrum of possible encounters. Above all, there are *two* dice. This is the most revolutionary change of all.

With one die, all six outcomes have equal probability at any odds. At 2-to-1, for example, the suspense can be murder! You can lose everything, or kill all the enemy, or retreat-and there's not the slightest hint of which it will be. With two dice, we have a middle range ("5" through "9") which occur two-thirds of the time, and two extremes which each occur only one-sixth of the time-one bad for the attacker ("2" through "4") and one bad for the defender ("10", "11" and "12"). "Surprises" on the dice become truly unusual variations from the ordinary, expected results. Also, additive effects of modifiers are a serious matter, skewing the most likely combat results to more serious defeat or complete victory. A +2 modifier means there are six chances for a "12" instead of just one, and means results will fall in the "high extreme" range more than half the time.

The possible outcomes of combat vary a great deal. Contact means no effect. It is the best result you can get—all the grief is in the enemy's lines. Shaken means a unit must roll for morale (see below). Passing the morale check is equivalent to a "Contact" result. Withdraw means your commander saw his unit getting mauled and conducted an orderly one-hex withdrawal. Retreat is withdrawal combined with a morale check. In particularly unpleasant circumstances, a unit Breaks without the luxury of a morale check—this is a retreat and automatic failure of morale.

[OPTIONAL: French advantage—After resolving all his attacks, a player may move all his cavalry and horse artillery one additional hex IF this movement will end with another attack. These units may attack even after first round combat, but they must attack without infantry or foot artillery being involved. They may expose flanks to adjacent enemy units without attacking them so long as they attack all units in their frontal squares. This sort of cavalry "mopping up" is particularly effective against broken, retreating units when it can be managed safely. After such charges, cavalry and horse artillery must return to the hexes from which the charge began.]

[OPTIONAL: Allied advantage-Foot artillery never "charged" into enemy lines during an attack. After an opening bombardment, it was up to the infantry and cavalry. To reflect this, foot artillery is left behind one hex to the rear of attacking units (horse artillery may gallop forward with the attackers). In attacks, foot artillery is counted as firing two hexes, a bombardment which occurs before the advance to contact by the infantry/ cavalry. No combat results or morale checks apply to the "bombarding" artillery units themselves. However, they may not fire unless there is an empty hex between their guns and the enemy target at some time during the movement portion of the turn. After combat, the foot artillery may advance to stack with any units participating in an attack on the same target. Artillery defends normally; there is no "bombardment" on defense, and no two-hex defensive range. Combined arms bonuses still apply to "bombarding" artillery.]

6. Combat Results Modifiers

Rivers and hills no longer double defense factors. Instead, they are but one set of modifiers on the roll of the dice. As such, they join a number of other factors considered here. When resolving a battle, roll the dice and then go through each of these sections in turn, accumulating all appropriate modifiers.

Combined Arms effects (see table) essentially reward stacking infantry, artillery and cavalry together. When a unit attacks alone from a stack, use the column for units involved in that attack only. Do not count other unit types in the same hex which do not participate in the attack. Different unit types in different hexes gain the combined arms modifier if they attack the same defensive unit(s).

Unit Integrity effects (see table) give a bonus to Guards and a penalty to Landswehr. These bonuses apply only to infantry and cavalry, never to artillery (neither horse nor foot). In mixed stacks, infantry always takes precedence over cavalry in determining this modifier.

Elevation effects are separate from other terrain modifiers, so they can be cumulative with such other effects. High ground is good defensive terrain. Slope hexes are the same elevation as the plain, but are "below" hilltop hexes. Hilltop hexes themselves are not "above" adjacent plain terrain however.

Terrain effects include river fording, forests and towns. The defending player chooses any *one* applicable effect. Rivers offer the biggest advantage. The penalty for attacking from a hex in which the attacker also crosses a river applies even when bridges are present (crossing a bridge and then deploying into battle formation while facing a formed enemy is just as much a liability as fording in the face of fire). As always, river hexes are those in which a river both enters and leaves the hex. All hexes with green coloring are forest. Remember, these effects are cumulative with elevation effects.

[OPTIONAL: Artillery fire is drastically hampered by dense forest. Hexsides partially or wholly covered by green are forest, and artillery fire across such borders is halved (retain fractions) for both attacker and defender.]

Finally, the attacking player chooses one of the "Facing" effects if applicable. For all these modifiers, there is but one simple guideline. If they are in the same paragraph above, only one is applicable, but one DRM from each paragraph may be applied and are cumulative.

Orders of Battle and Appearance for THE CAMPAIGN GAME SITUATION—7 am on June 15, 1815

This chart lists all the units that are in play at the start of the Campaign Game (beginning as in my "Crossing the Sambre"), and all the units that enter as reinforcements. Players must place these units as indicated.

French Army

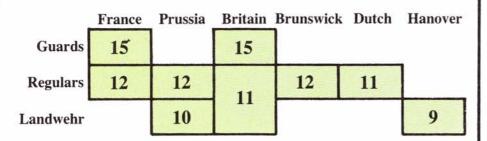
French Army	
7 am, June 15: Reille HQ, II Horse Artillery, Pire	XX23
9 am, June 15: Bachelu, Jerome, Girard, Foy, II Artillery	XX23
11 am, June 15: Mortier HQ, I Guard Artillery, Friant, Morand, Duhesme, Guyot, Desnouettes, I Guard Horse Artillery	XX14
1 pm, June 15: Napoleon HQ, Pajol HQ, Soult, Subverie, Excelmans HQ, Stroltz, Chastel	XX14
Gerard HQ, Pecheux, Vichery, Hulot, Morin, IV Artillery, IV Horse Artillery	XX06
3 pm, June 15: Ney HQ, D'Erlon HQ, Alix, Donzelot, Marcognet, Durette, Jaquinot, I Artillery, I Horse Artillery Vandamme HQ, Habert, Berthezene, Lefot, Domont, III Artillery, III Horse Artillery Kellermann HQ, L'Hertier, Roussel	XX23 XX14 XX06
7 am, June 16: Labau HQ, Simmer, Jeanin, Teste, VI Artillery, VI Horse Artillery	XX06
9 am, June 16: Milhaud HQ, Wathier, Delort, I Cav Artillery, II Cav Artillery, III Cav Artillery, IV Cav Artillery	XX06

Prussian Army

At Start: Steinmetz Zeiten HQ, Pirch II Jagow Treskow, Lutzow, I Horse Artillery	F. L'Eveque Charleroi Fleurus Gosselies
9 am, June 15: I Artillery	DD10
11 am, June 15: Henkel Blucher HQ, Pirch I HQ, Tippelskirchen	KK06 DDI0

CHECKING MORALE

Each unit has a Basic Morale value as shown on the accompanying chart. Morale affects units in two distinct ways. In each case, players will "check" morale by rolling two dice.



Morale Modifiers
(Apply at the moment of combat

COMMAND EFFECTS: Choose one
Own commander (Corps or higher) present or adjacent: -1
Own commander not within three hexes (five for cav): +1
UNIT TYPE EFFECTS: Combine all that apply
Any artillery defending alone: +1
Retreat from Cav without friendly cav: +1

COMBAT EFFECTS: Combine all that apply
Retreated from combat (does not affect Guards): +1
Held while enemy withdrew or retreated: -1
Unit already broken: +3
Both flanks secure (no enemy ZOC): -1
One flank turned: +1
Both flanks turned: +2
Guards adjacent or stacked with: -1

1 pm, June 15: II Artillery	DD10
3 pm, June 15: Krafft, Brause, Langen	DD10 or Z12
5 pm, June 15: Thumen, Schulenburg, Sohr, II Horse Artillery	DD10 or Z12
7 am, June 16: Thielemenn HQ, Marwitz, Lottum, III Horse Artillery	DD10 or Z12
9 am, June 16: Borcke, Kampfen, Luck, Stulpnagel, III Artillery	DD10 or Z12
3 pm, June 16: Sydow, Schwerin, Watzdorf, IV Horse Artillery	DD10 or Z12*
5 pm, June 16*: Bulow HQ, Hacke, Ryssel, Losthin, Hiller, IV Artillery	DD10 or Z12*

The notation "DDI0 or ZI2" means that the player may enter these forces at either one of these places, but only at one. *=If both are in French ZOC, delay entry until 1 pm, June 17, with the entire IV Corps arriving in B24.

Anglo-Allied Army

At Start: Perponcher, Gey Opstal	Nivelles Quatre Bras
9 am, June 15: Trip, Ghigny, Merlen Chasse, Lux, Krahmer	A45 U48 or QQ37
II am, June 15: Brunswick Cav	A45
7 am, June 16: Wellington HQ, Picton, Heise	A45
9 am, June 16: Brunswick, Moll, Heinemann, Wissel Orange HQ, Alten, Williamson	A45 U48
11 am, June 16: Cooke, Sandham, Kuhlman	U48
1 pm, June 16: Kruse, Dornberg	A45
5 pm, June 16: Uxbridge HQ, CavBatts, Somerset, Ponsonby, Vandaleur, Grant, Vivian, Arenschild, Estorff	C57
7 am, June 17: Clinton, Balton, Sympher	U48
l pm, June 17: Hill HQ, Anthing, Stedman, 1st DB Artillery Cole Bruckmann	C57 U48
5 pm, June 17: Colville, Hawker Bennigsen, Beaulieu, Bodecken	C57 A45

7. Morale and Morale Checks

Each unit has a basic morale value as shown. Morale determines whether and when a unit is eliminated from play. This value is highest for the Guards ("15") and normal for Regulars ("12"). British line divisions have a morale of "11" because they included German militia regiments scattered among the line regiments. Dutch, Hanoverian and Prussian landwehr have lower morale. There are two types of morale checks, each performed by rolling two dice.

Roll one morale check for each defensive stack or group of attacking units immediately following a combat result of "Shaken" or "Retreat". After rolling, modify the roll according to the Morale Modifiers as shown on the table. If the modified result is equal to or greater than the unit's morale, that unit fails the morale check—it "breaks". If the result is less than the morale value, there is no effect.

A unit which breaks in combat is inverted immediately. It may not move while broken, except to withdraw again if adjacent to enemy units. (If it cannot withdraw, it is considered overrun and is removed from play immediately). Broken units cannot attack, defend at half-strength (retain fractions), and have a zone of control reduced to only the hex they occupy. All surrounding hexes are considered the "rear" of the unit for facing purposes so long as it is broken.

Broken units meet one of two fates. When the owning player next begins his Movement Phase, he may attempt to "Rally" broken units. Only HQ units may move before any attempts to rally. Each HQ may attempt to rally units in one hex only. To rally, a broken unit must be out of enemy zones of control, and stacked with a HO counter in its own chain of command. For example, Reille may not rally units in Vandamme's corps. (Consult the AH Order of Battle Card for chains of command if unsure.) Army commanders (Wellington, Blucher, Napoleon, Ney and Grouchy) may rally any unit of their own color. Wellington, Hill and the Prince of Orange may rally any Anglo-Allied Reserves (Picton, Brunswick, and so on-see Order of Battle Card). In rallying, roll two dice for each broken unit with an appropriate commander. Add two for the roll for the attempt to rally. If a broken unit cannot be reached by a commander for a rally attempt, or if the modified result is equal or greater than a unit's morale, the unit fails to rally and is removed from play. If the modified result is less than a unit's morale, the unit is rallied. It may move and defend normally, but it may not attack in the same turn that it rallies.

[OPTIONAL: French Advantage—To reflect French sympathies and actual performance during this campaign, the morale of Chasse, Lux and Krahmer may be reduced to "8". Their normal behavior at this battle was to run at the first sight of French presence in the field.]

If an already-broken unit is attacked before it can attempt to rally (as during a cavalry "second impulse" or for a unit broken while attacking), it may be forced to check morale again. Failing such a morale check while broken results in immediate removal from play, just as if the unit had failed to rally. All pertinent modifiers apply to such a check, based on the situation at the time of this second combat.

The morale modifiers include bonuses for HQ units and penalties for running off at great distances from one's commanders. Since only HQs in a unit's own chain of command count for the "command bonus" on morale checks, and since only such HQs may attempt to rally broken units, it will clarify play considerably to mark the Corps assignments of all non-HQ units somewhere on the counters. Some players may even wish to mark the morale value of each unit on the back of the counter. There are also combined arms bonuses and penalties, and

"situational" effects reflecting the unit's position with respect to both friends and enemies. If no enemy units' ZOC extend into the flank or rear hexes of a unit's own zone of control, there is a morale bonus. If, however, enemy units occupy such flank or rear hexes, the flank has been turned and there is a morale penalty. If enemy "frontal" zones of control reach into flank or rear hexes, that flank is turned unless friendly units or the "frontal" ZOCs of other friendly units are also present in that hex.

Corps and higher HQ units, which play such a crucial role in morale, and therefore survival of combat units, normally cannot be eliminated from play. They never "break" in combat. They retreat along with other units. If exposed unprotected to enemy zones of control (they have none themselves), they simply move to the nearest friendly combat unit. However, if all units stacked with a HQ are subject to a "B" result (an automatic Break), roll the dice. A roll of "2" or "12" means that the HQ is overrun and eliminated from play. It may not attempt to rally those or any other units before removal.

PLAYING THE FULL CAMPAIGN

This third scenario, "Napoleon and the Iron Duke", completes the series on the WATERLOO game. To play the full five-day campaign from start to finish, simply combine the rules above with the following Campaign Order of Battle. The game then extends from 7AM on June 15th through 5PM on June 20th.

[OPTIONAL: Allied Advantage-Since evening fighting occurred throughout this campaign, add a 7PM turn to each day. Any PAA reinforcements schedules for arrival at 7AM the following morning may arrive in the preceding 7PM instead. This rule also may be used in any of the three scenarios for the game using these rules.]

All together, there should be enough grist in this article to keep all the "Old Guard" of WATERLOO fans out there busy for years. Doubtless there will be comments on my new rules, and on the scenarios and mini-scenarios themselves. Other mini-scenarios could be devised, for the battles of Wavre and Ligny for example. So, if you've that old WATERLOO game in a closet, go get it out again and see what you can make of all this. If by some bad luck, you don't own the game, I hope that these articles have stimulated your wargaming appetite so that you rush right out and buy it today. You won't be sorry, of that I am certain.





ORIGINS '87

The National Adventure **Gaming Convention**























Consider this your invitation to the greatest gaming convention on the continent-the 1987 version of ORIGINS-held this year in its birthplace, the beautiful city of Baltimore. No where else can you find as many game tournaments, dealers, demonstrations, seminars and outright fun as the National Adventure Gaming Convention. With all events held in the opulent facilities of the Lord Baltimore Hotel, Inner Harbor Hyatt Regency, and the Baltimore Convention Center, this year's convention promises to be the best ever! Convention registration is \$25 for the entire show (\$20 to pre-registrants). Single day admissions are available for \$10 each (but cannot be pre-registered). Convention hours are 1 p.m. through 12 p.m. on Thursday, 8 a.m. through 12 p.m. on Friday and Saturday, and 8 a.m. to 5 p.m. on Sunday.

For those who wish to make the convention a family affair, the sites are in the heart of the city, within easy walking distance of a plethora of entertainment opportunities ranging from the exotic shopping and culinary delights of Harbor Place to the acquatic wonders of the National Aquarium and the fantastic displays of the Maryland Science Center. Or visitors can stroll back in history by boarding the sailing warship USS Constellation or the USS Torsk (a WWII submarine). The new Power Plant is an entertainment complex developed by the famous Six Flags Corporation, a delight to children young and old and only three blocks from the Convention Center. And, in the distance of a short drive are the wonders of Washington, D.C. and the majesty of America's greatest battlefield-Gettysburg, Pennsylvania. This year ORIGINS can indeed be a vacation for the entire family, with plenty to do and see for both the gamer and non-gamer alike.

So, while spouse and children are occupied with the many wonders of the area, the dedicated gamer can be tending to his hobby in one of the 19 spacious meeting rooms set aside in the Hyatt Regency or Lord Baltimore hotels (offering over 50,000 square feet of gaming space) or indulging himself in the exhibitor areas in the 180,000 square foot Baltimore Convention Center. Miniatures enthusiasts will hold forth in the luxurious Constellation Ballroom. An additional 50 conference rooms have been set aside for seminars and demonstrations by some of the leading professionals among this hobby's membership. And all these buildings can be reached without ever crossing a street thanks to the system of elevated walkways. To top it off, the attendees will have a front seat for the annual 4th of July Inner Harbor fireworks extravaganza. It will be a weekend to remember for the whole family.

For more information on lodging, or on events, interested gamers should please contact the ORIGINS Committee (P.O. Box 15405, Baltimore, MD 21220). We look forward to seeing you there.





















Soviets invade Iran!

Gulf war expands!

It is April, 1988 and the Ayatollah has been deposed. Iran is once again a major US ally, openly supporting the struggling Afghan guerillas. In response, the Soviet Union and Iraq have sent their T-72 tanks rolling over the Iranian borders . . . intent on making Iran theirs! Can you halt the invasion? Can anyone? Find out for yourself.



\$30

Gulf Strike has drawn unanimous raves from major software magazines as well as the gaming public. Family Computing Magazine has called Gulf Strike a "major leap forward for the genre, and the best computer wargame to date." Available on diskette for the Atari home computer, Apple II, Commodore 64/128, IBM PC and PCir (100% compatibles with Color Graphics Board).



Available at leading Computer, Software and Game stores, or direct from:

microcomputer games DIVISION



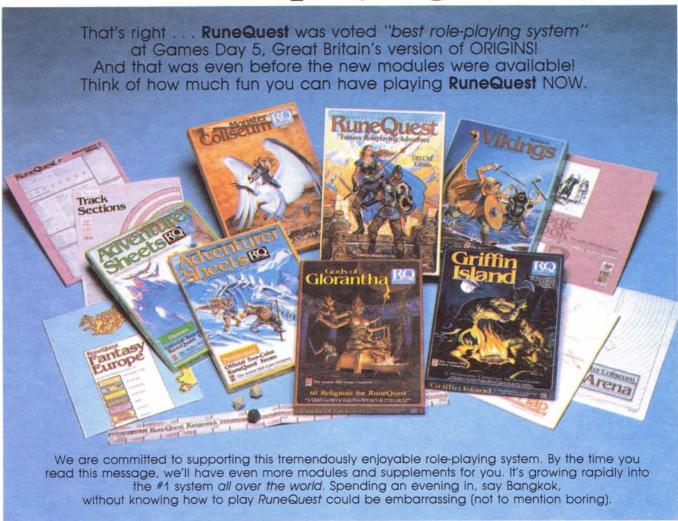
The Avalon Hill **Game Company**

A MONARCH AVALON, INC. COMPANY 4517 Harford Road . Baltimore, MD 21214 301-254-9200 • 301-254-5300 • 1-800-638-9292

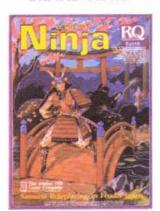
Ask for Operator G

Send \$1 for a Complete Game Catalog

Have you switched yet to the #1 role-playing system?



BRAND NEW!



For quick credit card purchasing call **TOLL FREE** 800-638-9292

Here's what's in the complete **RuneQuest** system to date:

- Deluxe RuneQuest—the complete game with 3 magic systems, new skills, new spells, and new combat rules . . . \$38
- Monster Coliseum—arena combat and chariot racing of the early Roman era . . . \$16
- Human Adventurer—not a game, but a playing-aid supplement for scorekeeping ... \$10
- Nonhuman Adventurer—includes scoresheets for 16 of the most imaginatively unique characters possible . . . \$10
- Vikings—the gods, giants and monsters from viking legend; a fascinating blend of history and myth . . . \$21
- Gods of Glorantha—introducing hundreds of new skills, spells and sorcery in this gloranthan supplement . . . \$18
- Griffin Island—includes brand new map, and devices freeing the gamemaster to join in the play himself . . . \$16
- Land of Ninja—Samurai role-playing in feudal Japan . . . \$16

Available at your favorite game store, or direct from:

GAMES OF

The Avalon Hill Game Company

DIVISION OF MONARCH AVALON, INC. 4517 Harford Road * Baltimore, MD 21214

OPERATION RAINBOW

Results of Contest #131

By Rex A. Martin

For the contest of Vol. 23, No. 1, I decided on a departure from our usual brain-wracking puzzles. Bored beyond measure with contriving yet another mindbender, it struck me that the readership might like a different kind of challenge—one laced with a bit of fun and fantasy. What could be more natural than an art contest? Everybody likes pretty pictures, and some can even draw them. So Contest #131 called for entrants to submit a name, and appropriate nose art, for a B-17 bomber.

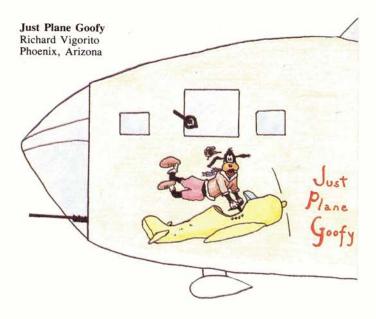
The men who flew in those hazardous skies over Occupied Germany had a love/hate relationship with the lumbering but tough B-17. Quite simply, their lives depended on their craft. It was inevitable that some would personalize their planes. (Americans have a deep "feeling" for their machines—be they planes, boats, cars, computers—that I've never noted in any other nationality; they go so far as to invest them with human qualities despite their bodies of tin and innards of wire.) At the beginning of American involvement in World War II, crews of the USAAF would plaster the bombers with drawings and photographs—usually of risque-clad ladies, famous or not, clipped from pages of popular magazines of the times. From this evolved the actual painting of these on the aircraft skin, mainly the nose section. This art form developed such with the increasing number of aircraft being deployed in Europe and the Pacific that by the end of the war a small industry for the best artists had arisen

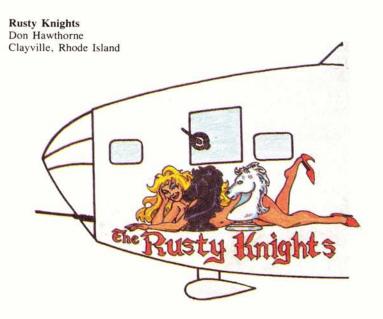
(one commanded as much as \$15.00 per aircraft). By the onset of the Korean War, the art had lost its "virginity", moving with the times to less romantic imagery. During the American involvement in Vietnam, nose art as such did not exist.

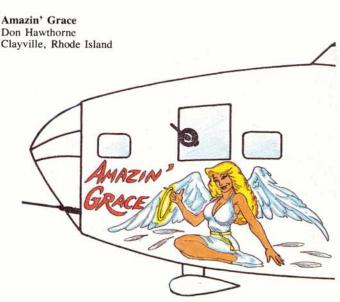
This art-form was one thrown up at a time of crisis, a chance to be seen and remembered. It was, for the average American airman in the war, a personal form of expression not catered for in the official squadron insignia. Whatever fantasies the pictures may have provided for him, these paintings on his aircraft imbued that mass-production piece of hardware with a personality no serial number could ever give. We wanted to honor that aspect of their war with this contest, and I was most impressed with the results.

The response to our contest was surprising, bringing a great many entries ranging from crude pencil sketches to one acrylic painting on canvas. The three judges—Charlie Kibler (our resident artist), Bruce Shelley (the developer of B-17, QUEEN OF THE SKIES) and myself—were overwhelmed. Literally, the entrants filled the sky with color. With much trepidation, we began the winnowing process. Each selected his ten favorites in isolation from the the other judges. Then we three met, compared our lists, and ended up with 19 entries for which at least one of us had voted. After much argument, we came to a consensus. And I announced the ten winners in Vol. 23, No. 3







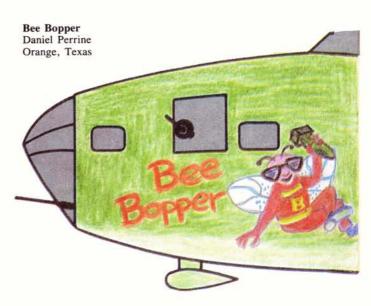


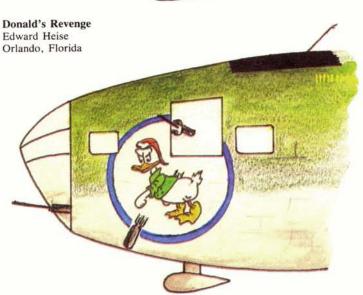
It was obvious that for some of our contestants, these planes were more than a picture. Many sent along histories of their craft, drawn from their play of *B-17*. For example, the words of Mr. Hawthorne on the *Amazin' Grace*: "My personal favorite, named for a fondly remembered ex who also serves as the model for the lady on both Grace and Rusty Knights (which tells you why the remembrance is so fond). Grace cracked up on landing but hadn't lost any crew, so her name was transferred to another bomber which served the next twenty

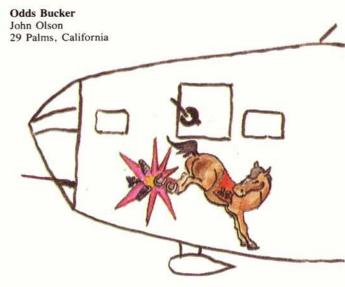
missions well . . . " The stories of the lives and deaths of these craft were often as entertaining to us as the artwork itself. These readers had put their hearts into this game, and into this contest.

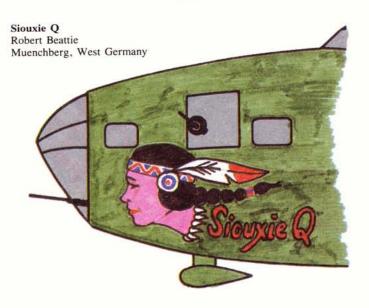
So, I felt it wasn't enough to simply announce the names of those planes and their imaginative creators. I wanted to display their work. Using the pages of our magazine as a gallery, here they are—the ten winning entries, along with a couple of honorable mentions from Mr. Hawthorne.

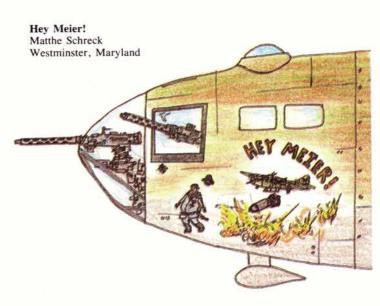












The 3000-Plane Raid

When last we reported on Mr. Olimski of El Paso, a die-hard *B-17* fan, he had completed 1000 missions. Just recently he sent along word that he had completed 3000 games of this addictive solitaire game, repleat with the "stats" on those missions. For the edification of you novice players, these are as follows:

	On	Off	B-17		Bomb Run	Average
Target	Target	Target	Losses	Missions	Total	Percentage
Abbeville	125	106	25	231	4495	19.45%
Amiens	70	82	10	152	2463	16.20%
Antwerp	65	84	17	149	2294	15.39%
Bremen	26	70	16	96	885	9.21%
Brest	35	62	20	97	1335	13.76%
Cherbourg	64	61	13	125	2296	18.36%
Emden	36	55	28	91	1258	13.82%
Hamm	35	75	24	110	1125	10.22%
Kiel	38	72	30	110	1280	11.63%
La Rochelle	26	75	31	101	990	9.80%
Lille	130	124	17	254	4714	18.55%
Lorient	35	58	24	93	1141	12.26%
Meaulte	137	127	22	264	5049	19.12%
Paris	34	52	23	86	1228	14.27%
Rennes	38	61	14	99	1295	13.08%
Romilly SS	46	67	28	113	1644	14.54%
Rotterdam	76	78	22	154	2844	18.46%
Rouen	75	80	13	155	2709	17.47%
St. Omer	77	68	5	145	2820	19.44%
St. Nazaire	47	114	31	161	1675	10.40%
Vegesack	40	57	31	97	1650	17.01%
Wilhelmshaven	38	79	35	117	1346	11.50%

Bombers Destroyed: 479 Bombers with 25 Missions: 10

The "On Target" and "Off Target" listings include bombers shot down, and the "Off Target" listing includes aborted missions.

Losses:	
#1 Engine Runaway 5	Port Landing Gear
#1 Engine Fire 1	Sbd. Landing Gear 20
#1 Fuel Tank Leak	BIP in Nose 2
#1 Fuel Tank Fire	BIP in Bomb Bay 2
#1 Fuel Tank Explodes 6	BIP in Radio Room 3
#2 Engine Runaway 3	BIP in Waist 1
#2 Engine Fire 2	BIP in Tail
#2 Fuel Tank Leak 6	BIP Port Wing 8
#2 Fuel Tank Fire	BIP Stb. Wing
#2 Fuel Tank Explodes18	Bombs Explode52
#3 Engine Runaway 6	Pilot/CoPilot KIA
#3 Engine Fire 2	Landing Gear Out 9
#3 Fuel Tank Leak	Bad Weather
#3 Fuel Tank Fire	Electrical System Out 8
#3 Fuel Tank Explodes12	Abandoned over England 3
#4 Engine Runaway 4	Oxy Fire in Radio Room 1
#4 Engine Fire 4	Oxy Fire in Tail 3
#4 Fuel Tank Leak	3 Engines Out 4
#4 Fuel Tank Fire	Multiple Damage12
#4 Fuel Tank Explodes 7	Negative Landing DRMs 5

* Not included are when four engineers landed planes safely in England.

Crew Statistics:

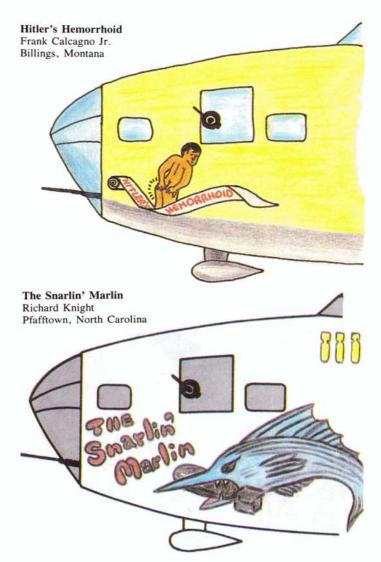
Total Crew: 4984 KIA-2355 DOW-165 Invalided-638 Captured-1306 Lost At Sea-466 Completed 25-54

Enemy Fighters KIA:

Me 109-2738 Me 110-1007 Fw 190-1446 Ace Status:
Bombadier—4 (23 kills)
Navigator—5 (33 Kills)
Engineer—100 (938 kills)
Ball Turret—72 (550 kills)
Tail Gunner—88 (714 kills)
Stb. Waist Gunner—3 (16 kills)

Campaign Results:

8th AF Victories—1196 German Victories—479 Draws—1325



Beyond the War . . . Cont'd from Page 10

15. Aerodrome Strike

As early as 1917, the British had been raiding enemy air bases, bombing and strafing shops and hangers and barracks. By 1919, this had become standard practice for both sides, but the British in particular excelled at the game. Often odd collections of aircraft would be seen circling German aerodromes, waiting to pounce on returning planes. At other times, the pilots of two or three planes might decide to raid an enemy airfield just as a lark. The usual pattern for an attack was five minutes of continuous low-level runs until patrolling enemy fighters from above swept in for a dogfight at rooftop heights. Certain planes were especially favored by British pilots for this "sport"—the new Snipe, and the aging but popular S.E. 5a.

- a. Use the victory point awards listed under *Victory Resolution* (page 15 of the rulebook). The Allied player receives, in addition, I victory point for each plane each *turn* in which it passes through hex 1605 at an altitude of 419 feet or lower.
- b. The scenario ends when all aircraft of either side have exited the mapboard or been removed from play.

c. Lineup

1. Allied Side:

S.E. 5a—starting hex 1933, nose pointing north, altitude 4019 ft., experienced pilot

S.E. 5a—starting hex 2234, nose pointing north, altitude 4208 ft., experienced pilot

Sopwith Snipe—starting hex 1434, nose pointing north, altitude 4284 ft., ace pilot

2. German Side:

Fokker D.VIII—starting hex 2710, nose pointing south, altitude 6982 ft., ace pilot

Fokker D.VII—starting hex 0120, nose pointing northeast, altitude 4511 ft., experienced pilot



LIKE A THUNDERBOLT

Western Options in THIRD REICH

By Craig F. Posey

Simulations of a strategic scope, especially on a continental scale, offer their players a seemingly great choice of options. In some cases, though, the scope of those options is more apparent than real. In WAR & PEACE, for example, France must attack Austria first in 1805, and then will probably concentrate upon Prussia and Spain in turn. In a similar vein, German players tend to follow a wellestablished course in THIRD REICH, namely: Poland, France, and then Russia. Still, even with these constrictions certain choices do exist.

As we have indicated, over the years the course of German operations has become almost codified. Certainly, as the Allied player(s), the best way to achieve victory will be to upset this German timetable. The question which arises is, what actions can or should the Allied side take in order to arrive at this goal? In this case, each of the game's scenarios offers its own ideas to the creative player.

1939

"Strike fast. Strike hard. Show no mercy, Sir!"

The most reasonable place to start is, as ever, the beginning and, since the German player dictates the flow of this scenario, we need to investigate what he shall probably wish to achieve. This scenario opens with the mandatory invasion of Poland, and the Axis players will most likely eliminate this country during the Fall 1939 turn. At the end of the turn, the majority of the German forces will redeploy westwards, leaving the required 20-factor garrison on the Eastern Front, plus a unit in Rumania. The Winter of 1939 will surely see a German invasion of the Netherlands, Belgium, Luxembourg, and possibly Denmark. The Axis players will likely have Italy build as much of its force pool as can be in the Fall, and possibly declare war upon the Western Allies in the Winter.

The year 1940 then begins with the German player's counters poised upon the French border, ready for their next drive. The normal German requirements to complete the reduction of France are three turns, though two would be optimal. Since it is anticipated that France will withdraw from the game by the end of the Fall 1940 turn, the German player will at that time redeploy eastwards and southwards. The remainder of 1940 might well be spent by the Axis player in digesting Yugoslavia and Greece, while launching their North African campaign against the beleaguered British.

The 1941 Year Start Sequence (YSS) will find the Axis powers to be in superior fiscal condition (i.e., more BRPs), even without any growth, as they now possess at least 367 available BRPs to spend. In addition, they have a potential 45 BRPs when their minor allies are activated. This should give the Axis sufficient leeway to conduct their excursion in North Africa, while Germany sets out to eliminate his Russian opponent. As can be seen, this is a relatively tight time schedule, having really only a one-turn cushion (Winter 1940). To this must be added the fact that if Russia is not absorbed before Spring 1942, the United States joins the Allied cause, shifting the initiative to the Allies.

In order to develop some method of thwarting this schedule, we must give some consideration to the initial placement of the French and British field forces. France in 1939 is only slightly stronger than Italy in potential ground forces (45 SP to 30), but then Italy doesn't have to confront the impending onslaught which France must. One thing is certain, France cannot face the German forces alone. And

it is sure to be overwhelmed eventually. Still, it must protect itself as best it can.

Fortunately, the French border with Germany is only two hexes wide, and both of these are fortress hexes. If this was all there was to consider, France could probably resist the German attack with little effort. Unfortunately, these two hexes can be outflanked quite readily. To their south, an Axis-controlled Italy is adjacent to three border hexes, as are the five hexes of the Benelux countries to the north. Therefore, instead of two hexes, Germany can lay open a front ten hexes wide. It is this front which France must cover with the sole purpose of shielding Paris from possible Axis capture. Within the constraints given by the deployment limits, we must determine the best French initial placements and subsequent deployments prior to the Axis asseault.

One of our first concerns, though rarely considered, is the location of the French fleet units. One would think the obvious answer would be Marseilles, and in some cases it might well be. If a French invasion of Norway were to be contemplated (risky at best considering the German threat), basing the fleets at Lorient or Calais might be justified; otherwise, they are confined to the Mediterranean. Personally, I prefer to base one fleet at Tunis and two at Beirut. With the required 2-3s deployed at these ports, they can be SRed to France or be readily available for other operations.

As Illustration #1 indicates, the air units available for France are based east of La Rochelle. Since they can base forward if they are needed for any attack, this rear area deployment is not unjustified and both air units are quite capable of reaching the majority of the front line if need for DAS. As an added incentive, only the air unit at R20 can be counteraired, and then only from Italian territory. As long as Italy remains neutral, this is certainly acceptable.

As to the ground forces, the Italian border is weakly held. Here again, we expect the Italians themselves to form our greatest protective barrier. Still, to trust an opponent for your salvation would be foolhardy, therefore an armor unit at T20 will keep any exploitation attempt by German armor from reaching an undefended Paris in the Fall of 1939. The front with Germany is strictly a double line of infantry, the Belgian army supplying a portion of this defense as shown.

As the allowable builds arrive, they will flesh out the French defenses, completing the remainder of the second line and providing the garrison for Paris. The northern hinge of the line will be formed from the remaining replacement units (hexes L24 and M23), while the infantry at L24 will withdraw to N23. Of the other four infantry units, two will form the Paris garrison, while each can flank the city to the northwest and southeast. The armored units then form a mobile strike force for any recapture attempt. This defense does not take into account any British participation which there will, necessarily, be. This being so, what is now to be looked at is the British initial placement.

As is to be expected with a primarily naval power, the placement of Britain's fleets is critical. Of the six nine-factor units available, three have required deployments: two at Gibraltar and one in Egypt. Since the two French fleets at Beirut fulfill the requirements of Rule 35.5, deterring an Axis thrust into the eastern Mediterranean, the British fleet in Egypt can be based at Alexandria. Of the remain-

ing three fleets, I prefer to place them in Portsmouth where we can maintain a wide selection of available options.

The ground forces available to the British player are of secondary concern, but still important. For instance, the Western Desert Force (2-5 WDF armor) and a 1-3 infantry unit should be placed at Alexandria with the fleet unit. The available 4-5 armored unit should go to Gibraltar. This leaves the three 3-4 infantry and two 5-4 units available to protect Great Britain (Illustration #2). I believe that most players will find that this will leave the Anglo-French alliance with the greatest selection of options.

Assuming that the Axis has done as expected (i.e., Germany defeats Poland and then re-deploys westwards while Italy builds all available ground forces), what then are the options? One possibility, of course, is to purchase as much of your allowable builds as possible, and then waste as many BRPs as possible, avoiding the double turn like the plague. Another possibility is to accept the double turn and launch a strike against Norway, securing the Murmansk convoy route. While this will garner the Allies Norway, it will subject France to a double-turn attack in turn by the Axis.

Yet another choice comes to mind. What if the Allied players actively sought the double turn and, as hinted in "Would You Believe a Week" (The GENERAL, Vol. 17, No. 5), decided to make a preemptive strike against a neutral Italy. Given the strength totals available to the Italians, I believe a joint Anglo-French venture can virtually guarantee success, but what would be the benefits of this excursion? Assuming that Italy falls at the end of the Winter 1939 turn, there are several significant ones. There would be NO Axis double turn, as the Allied BRP totals for the 1940 YSS would be 247

Illustration #1 A typical initial deployment of French forces, which allows for the creation of a double line of troops once the forces of Belgium and the Netherlands are deployed in their respective countries.



against 200 for Germany alone. North Africa (Libya) would fall to the Allies at no cost. And don't overlook the loss to the German player of the Italian force pool, especially those air and fleet units. True, the German player may still topple France and retake Italy, but the loss of BRPs and units this course represents could prove devastating to him.

Using Mr. Watney's defense in that article (Illustration #3), we will show that we could bring Italy to an early demise. Once this has been tried upon Axis players, they will realize the threat to Italy that is implicit in the British set up. Assuming that the German player spends a full 75 and the Italian 18 BRPs necessary to construct her allowable ground force builds, the BRP level at the end of Fall 139 will be 132. Since the Allies begin the game with 210 BRPs, they will have 77 available to spend in order to manipulate the flip-flop. So, what are the projected expenditures for the Allied Fall turn under this plan? First, Great Britain will declare war on Italy-35 BRPs. Then Great Britain and France declare an offensive option on the Med Front-15 BRPs each for a total of 30-and attrition on the Western Front.

During the Movement Phase, the second French fleet at Beirut will be ordered to change its basing to Tunis. The intent is to draw the Italian fleets from their harbors. Then, the two British fleets at Gibraltar will change their base to Oran. This opens the way for one more base change; the fleets at Portsmouth change base to Gibraltar. If during the Movement Phase the Italians have failed to sortie, then they will find their four fleets facing a total of nine Allied fleets in the Mediterranean during the Combat Phase.

In order to complete the Allied preparations, the French construct an airbase at Ajaccio, and stage both of their air units to this point. Also, the British player constructs an airbase at Lyons and stages his units to this point. The French armored unit moves to T21 to join a 2-3 infantry unit in preparation for their attack on Turin.

All is now ready for the Combat Phase and the announcement of the seaborne invasions (two) which will take place. The first group to move will be the two fleets at Tunis, transporting the infantry unit located there. They are to proceed to Beirut where they are joined by the fleet and unit at this location, finally steaming to AA22. The second armada consists of the two fleets at Oran moving to Gibraltar where they are joined by the fleets and armored unit at this port. This combined group then sails to Alexandria, picking up the fleet, the 2-5 armored unit and the 1-3 infantry there, and heads for hex W25.

The only major obstacles to the success of these operations are the Italian air and naval units. Assuming they (the Italians) concentrate upon the Royal Navy, what results could we anticipate? First, their air units could be expected to yield an average loss of three strength points (3.33) to our fleets. Then, assuming all four of their fleets intercept, they would face a naval battle with a +3 die roll modifier in the British favor. As long as the British win this crucial engagement, the battle for Italy should be nearing a successful conclusion. One thing we should note, though; the Italian air can, but I believe should not since they have more pressing business, attack the British naval units. If they do attack, they are merely aiding the Allied cause, since they will not be available for defensive air support.

The order in which combat takes place can definitely be critical, as each success nips away at the Italian's confidence. First, the French armored and infantry units at T21, assisted by British air, attack the Italian infantry unit at Turin (T22) at 5-1 odds, leaving five British air for any necessary interceptions. Next, the two invading French infantry units, with shore bombardment support, attack the reserve unit at AA23. The odds here are 3-1,

unless the Italian air units are committed to this battle; they would need a mimimum of two air units to lower the odds to 1-1. The most crucial invasion is that of hex W24 by the British. Assuming that they have survived all that was thrown at them, the WDF and the 1-3 infantry unit invade the hex and place a bridgehead. The 4-5 armored unit then exploits into the beachhead and, with ground support from the French air units based at Ajaccio, attacks the reserve unit at W23 at 3-1 odds. This leaves five French air strength points available for any interception missions.

During the Unit Construction Phase, the French player will build the two remaining armored units in their force pool (12 BRPs). This entails a total expenditure for the turn of 77 BRPs, leaving a balance of 133 BRPs, one more than the Axis total and insuring the flip-flop. During the SR Phase, the British ships at Gibraltar will SR back to Great Britain, and those at Oran back to Gibraltar (unless the French attack on AA23 failed, in which case only those at Oran are moved, and them to Alexandria). If the French attack upon AA23 has not succeeded, then the French fleets will need to SR to Marseilles, a 2-3 infantry unit will need to SR to this city and have an armored unit constructed here. Why? Because unless a pair of units or an armor unit can seal the southern half of the Italian peninsula, the Italian navy could change the base of one or more of their naval units to either Durazzo or to a Libyan port, opening a supply route. Failure to do exactly this means that the Allied navies must try to intercept any Axis change of base.

The Winter 1939 turn will see the closing of the noose around Rome (see Illustration #4 for the situation at the beginning of the turn)—assuming that all went well in the Fall. If it did, then one of the French infantry units at AA23 will advance to Z24, and the other into Z23, sealing the southern half of the peninsula. Supply for both bridgeheads will be coming from a designated French fleet. The British WDF at W24 advances to W23 with the 4-5 armor attacking hex X22, creating a breakthrough hex from which the 4-5 armor can exploit into Rome. Next, the British construct an airbase at W21 (Corsica) and at the bridgehead (W24) with air units staging to these bases. A French 2-3 infantry moves to join the armored unit at Turin, with an additional French armored unit being moved into T21. With the French air units at Ajaccio flying ground support and/or providing for the necessary interception missions, the units at Turin will attack the reserve unit at Milan, creating a breakthrough. The armor moves into Milan, joined by the other two armored units which can then exploit into T25 (and maybe T26), sealing Italy's northern border. The Allies have now established three defensive lines across Italy and await the Axis response.

If we have achieved our goals, do the Axis player(s) actually have a response-at least, any response that will save Rome? No, I don't believe so. Even though the units at X23 with ground support from Italian and German air forces can eliminate the 4-5 armor unit in Rome (especially considering the likelihood of Axis counterairing the British air units), they cannot advance into Rome (27.42). German armored units exploiting from a breakthrough hex along the northern Italian border cannot exploit into Rome due to the 1-3 infantry in W24 and the WDF at X22, and Italian units in southern Italy can advance no further than the line created by the French infantry units. The only Axis salvation possible would be if the German airborne unit was located in any one of three hexes with an airbase (S26, S27 or S28).

So, what can the Axis do to forestall this piece of Allied adventurism. Well, they could limit their BRP spending so that the Allies could not manipulate the flip-flop. Or Italy could declare war on the Allies first and German units could SR into Italy to bol-

ster its defenses. Or the German airborne unit could be constructed at Graz. Or the Italian player could reconstruct his defense of the peninsula (not much better, admittedly, but perhaps a garrison in Rome would help). Of these choices, the first seems highly unlikely as it could jeopardize the Axis Winter turn. The third, while advisable, might well be dismissed as it adversely affects any Norwegian campaign. This leaves us with the second and fourth options, and I feel that the last is the most likely and reasonable. The Italians will generally stand and simply await the Allied assault.

Aside from the attack on Italy, the initial British placement, as indicated earlier, offers other options to them. The Norwegian campaign comes readily to mind; and the placement of the 4-5 armored unit at Gibraltar as the main striking edge, coupled with the flip-flop, will allow the completion of this enterprise prior to any Axis riposte. Unfortunately, the Axis flip-flop that will follow could prove fatal to France.

What if the Allies decline the flip-flop and are determined to maintain the normal flow of the game? Is this deployment still advantageous? Yes, since the British player is capable of SRing three ground units from Great Britain, the 4-5 armor from Gibraltar, and possibly even a unit from Egypt to France, as well as the French player's ability to SR the two infantry units from North Africa. This bolstering of the French defense of their homeland could lead to an improvement of the Allied player's ability to resist the German timetable.

Truly then, the opening turns of the 1939 scenario set the tone of the campaign in the West. The Allies can either attempt to seize the initiative or they can choose to react to the Axis player(s). In either case, the Western Allies must continue to seek ways to deprive the Axis of BRPs, thus weakening their position. One method, especially with Soviet collusion, that offers significant rewards is "Foreign Aid". The only questions is to which countries should each side extend their assistance. Since the Russian has the fewest choices, the decison must be made with these in mind.

Of the three countries (Hungary, Rumania and Bulgaria) to which the Russian player can grant BRPs, each has its own reasons for selecting or rejecting it. From the Soviet standpoint, Bulgaria is easily discounted. Since Rule 25.42 precludes the use of Bulgaria's forces in Russia and, in fact, limits them to the Balkans, they pose no immediate threat to any Allied position. Rumania would probably be an ideal choice, as it has the largest BRP total of the Axis Minor Allies as well as the largest force pool (in factors, the same as Finland, but with a greater quantity of counters). Unfortunately, Rule 43.3 precludes the Russian player from garnering the 25 BRPs for East Europe unless they occupy Bessarabia or await the Spring 1940 turn (at which

Illustration #2 The initial placement of Britain's home defense force, with Portsmouth/Southampton holding three nine-factorfleets and two 5-4 air units (which can redeploy to Lyons if needed).



time the 25 BRPs can be gained by occupying the Baltic States). This course gives the remainder of the area to the Axis player as a buffer zone. We believe that Rumania is not a likely receptor of Russian BRPs. This leaves only Hungary, and upon this nation the Soviet Union should shower its largesse.

Once the Soviet selection is made, then the British player, if he desires to aid Russia, must select one of two countries—namely, Finland or Rumania. Any British effort to placate Finland would have some definite advantages: removal of Finland's 10 BRPs and force pool from the grip of the German player, and the securing of the Soviet Union's northern flank. True, it will cost Britian two SRs each turn that they dispatch BRPs to accomplish this, but it would be justified if Finland remains on the sidelines.

As for Rumania, I noted above that her BRP contribution and force pool are the largest available to the German player. With the loss of the Hungarians, the Axis will have to have the Rumanians to secure his southern flank, as to stretch it much further could cause them serious problems; with the loss of Rumanian support, the Axis will be forced to use German units to hold the entire Russian front. This could jeopardize his double line defense and stretch his reserves to the breaking point. For this reason alone, I believe that the British should choose Rumania over Finland to receive his BRP grants. If affordable though, Great Britian might consider giving support to both of these countries.

The Western Allies must, in any playing of the 1939 scenario, concentrate on two related courses of action in order to prevail over the long run. One is delay. The longer it takes the Axis players to subdue France, the less time they will have to ready the attack on the Soviet Union. The other, as we have noted above, is to reduce Germany's BRP availablity, whether it be by eliminating their allies or merely by buying them off. Remember, even if we fail to keep a minor ally from activating, we will have forced the German to match our spending, thus reducing their otherwise available BRPs. The survival of Soviet Russia is in the hands of the Western Powers.

1942

"At a time like this, I think of the old days . . . "

With the disastrous Winter of 1941 over, the German Wehrmacht was once again starting to register great territorial gains. The Sixth Army was on its way towards Stalingrad; and the Afrika Korps was reaching for Alexandria. In the 1942 scenario, the Axis player's forces exhibit great potential for prosecuting their war effort. Yet the Allies have some new capabilities too, highlighted by the advent of the American forces upon the European scene. Still, as in any other situation, a direction of effort and spheres of operations must be delineated.

Unlike most simulations which stress concentration of effort, THIRD REICH stresses a need to achieve a single goal along diverse lines. In other words, each of the three fronts requires its own attention, its own effort, in order to force the Axis players to stretch their forces to cover a multitude of threats at the same time. In order to reach this goal, we must consider the situation for the Allied players and look at options allowing them to achieve their end of defeating Germany.

Of the three fronts, for obvious reasons, the Allied program on the Eastern one is dictated by the Russian player (Rule 12.25); and for Russia, the first year of the scenario will be one of fighting to survive. Russia's ability to endure, though, is dependent upon the course of action chosen by the United States and Great Britain.

In order to conserve BRPs, it is generally advisable for each of the three major Allied powers to operate on fronts that are exclusive of the other two.

Still, exceptions must occur. And in this scenario, it is nearly imperative to concentrate your BRP expenditures. Therefore, I recommend a divergent, but united, effort by the Western Allies on the Mediterranean Front while they maintain a statusquo situation on the Western Front. Historically, in the south, until near the end of 1942, the British forces were on the defensive. After El Alamein the situation changed to one with the Eighth Army pursuing a shaken (but not broken) Axis army towards Tunisia. Once North Africa was cleared, a joint Anglo-American expedition landed upon Sicily, soon followed by their invasion of the Italian peninsula. At this point, the campaign began to stagnate.

Except that the victory conditions penalize the Allies heavily for the survival of Italy in the 1942 scenario, we might as well consider bypassing it. As soon as the Axis powers have been removed from North Africa, greener fields must be selected. Still, is Italy necessarily the best target for this coming return to the continent? Yes—and no. Why am I opposed to a direct invasion of Italy? Primarily because it has only a two-hex frontage with which Italy can be made virtually impregnable. If I have decided that Italy is not viable for the main effort, then where would it be?

Some thought and consideration should be given to Churchill's recommended sector-the Balkans. With the almost full deployment of the American land and naval forces into the Mediterranean in 1942, the U.S. player might be able to start preparations for an invasion of Greece during the Winter of that year or the Spring of the next. The initial assault should be aimed at the islands in hexes EE28 (Andros) and CC30 (Mytilene) as U.S. airbases on these islands will supply air cover for the beaches at AA29 and CC26. Of course, if these beaches are weakly held, and given the British naval superiority, we might consider a strictly naval invasion of the beach at Salonika. From this site, with SRed air units, the Americans can strike toward Sofia (eliminating Bulgaria and her BRPs from the German reserves) or strike southwards and westwards into Greece and Albania with the aim of gathering BRPs and a port.

This threat to Germany's southern flank should achieve the desired result of drawing his reserves to this sector in order to protect his BRP base in the Axis Minor Allied countries. Yet, where are these reserves to come from? Presumably Bulgaria, Italy and France, for unless he has been highly successful in Russia during 1942, the German player probably will not be able to remove troops from the Eastern Front.

Since this invasion of the Balkan peninsula will not by itself lead to the destruction of the Axis base, though the presence of Allied armored and air units near the Russian Front will give the German player plenty to ponder, other options should be explored. This is indeed the time for that Italian invasion, not of Sicily but rather of the northern beach we selected in 1939: hex W24. If possible, as in the 1939 scenario, this should be coupled with an invasion of the beach in hex AA23. The goal of this drive is to remove the Italian forces and BRPs from German control, forcing the Axis to bring troops out of Russia to seal these penetrations of Italy.

The immediate objective of these two Allied operations, once the initial requirements for basing and supply are met, is to unite their offensives near Trieste. In achieving this end, the Allied players should remove Italy, Rumania and Bulgaria from the Axis, while adding Greece and Yugoslavia to the Allied BRP total (in addition to these conquered states). An optimistic schedule would set this linkage of Allied offensives no later than the Winter 1943 turn, assuming that Russia has managed to maintain its pressure upon the German.

With 1944 about to start, a truly combined Allied

(American, British and Russian) offensive can be launched against the remaining German forces in the East. The prime end of the Western Allies in this scenario is to reach Berlin before the end of 1944, securing it for themselves.

Why should we, like Churchill, opt for a Balkans campaign instead of the traditional Italian-French campaign. Actually, two reasons spring to mind, both interrelated, historically and in game terms. First, if France is neglected by the Allies, does this mean that the German can afford to? I suspect not, for as long as Great Britain contains enough Allied troops on its shores, the threat of invasion will forestall any German attempt to remove troops from occupied France. Secondly, by invading the Balkans, the Western Allies limit the extent of the territorial gains that can be made by the Soviet player. The result should be a much more rapid collapse of the Axis position as the combined Allied forces drive into the open plains of Central Europe and proceed to Berlin.

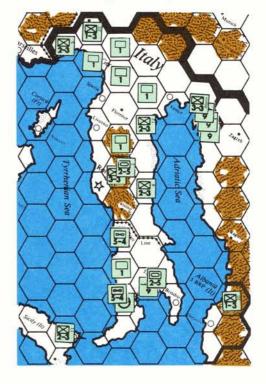
1944

"Thou wretched, rash, intruding fool, farewell."

Unlike the other two scenarios which allow the exploration of "fantasy" visions of the past, the time constraints of this 1944 scenario require a direct approach to its solution. First, Germany must be eliminated from the game no later than the Summer of 1945, and the Western Allies must achieve a higher level of victory than the Russians.

At the beginning of the scenario, the Western Allies control nine objectives, as opposed to eight under Soviet control. The prime difference is that the UK/US forces must garner an additional three objectives to reach the same level as the Russian player. A decision then must be made as to where these objectives will come from and the likely level of victory we wish to achieve. Barring an entente with the German player (much as Hitler dreamed of), we cannot expect German assistance in reaching the level we desire. Therefore, the Western Allies must consider their options carefully. Unlike the 1942 scenario, in this one we do recommend the separation of the American and British forces along front lines. I would consign the British to the Mediterranean and the U.S. forces to the Western

Illustration #3 Mr. Watney's defense of Italy for the Fall 1939 turn.



If then, in this case, how should the British player deploy his forces to take advantage of the situations which arise on his front. With a total of 27 nonnaval units available to him at the start, the British player soon realizes that to crowd everything into Italy is wasteful and unnecessary. To start with, the six replacement units should be used to garrison the North African holdings, as they can function as attrition losses as well there as anywhere else on this front. As shown in Illustration #5, the majority of the remaining forces go on the Italian mainland, with the air units and airbases stationed at Taranto and Brindisi to afford adequate air coverage. The infantry units form the line and its support with the 1-3 infantry units garrisoning Sicily, Malta and Gibraltar. This, then, leaves the airborne unit from our ground forces unaccounted for, and Ajaccio suits it as a base perfectly. As to the naval forces, three are stationed at Alexandria and Port Said solely for the purpose of keeping the British forces in supply. Of the seven remaining, three fleets can be initially deployed at Gibraltar, one at Malta and the remaining three at Brindisi.

The goal of all of this is to add flexibility to the Allied first turn. What choices might the British player consider? First, dependent as always upon the Axis set up, his forces are positioned to attack straight towards Rome, trying to gain it with exploiting armor. Or, the fleets at Gibraltar could change base to Naples. Once there, they would embark an infantry unit before sailing to Brindisi and joining the three fleets there, as well as two armored units, before setting out to perform an end run of the Axis position, ala Anzio. For British purposes, there exists three beaches which are suitable for this play: U19, W24 and W26. From any one of these beaches the British player can march into northern Italy and head south, trapping the German troops defending there. Once Italy is secured, hopefully by Winter 1944, the British should attempt to clear the Balkans, garnering as many of those objectives ahead of the Russians as possible.

Now, what of the Americans? While maintaining an adequate garrison of the British Isles, they are charged with the cross-channel invasion. Look-

Illustration #4 The situation in Italy at the beginning of the Winter 1939 turn.



ing at the available points, Wilhelmshaven would be ideal, though the more likely landing points are Dieppe (M23) and Caen (N21). I've a slight preference for the beach at Dieppe due to the adjacent port at Calais (M24). Remember, in this scenario, the destruction of German forces is secondary to the capture and holding of Berlin. But, by the same token, the territory behind the Allied front lines must contain a sufficient number of objectives to win.

Once a landing is effected, the American player must push to eliminate the sources of supply for bypassed German units. This will entail the capture of certain capital cities (Paris and Brussels) while sealing the French border with Germany. The Axis supply fleets, both in Italy and Germany, must be disposed of so that these encircled units do not remain active.

With France and the Low Countries secured, only one obstacle remains between the Americans and Berlin-the Rhine. In actuality, the Rhine and the West Wall together form this barrier. From the American point of view, the easiest crossing points will be those that do not involve German fortifications: K27, L27 and Q25. Hex L27 is especially favorable for it is the closest to Berlin. Once the Rhine line is breached, the American forces should be split into three unequal parts. Of these three divisions, the smallest, composed almost entirely of infantry, will secure the Denmark peninsula. The second group will strive to isolate Berlin, protecting it from Russian capture until the other two wings complete their missions. The last element will seek to capture Breslau and, eventually, link up with the advancing British forces. As much as possible, this must be accomplished during the Summer 1945 turn, as Berlin must be occupied on this turn at the latest. With the fall of Berlin, the war and the scenario ends, and the accounting begins.

Other Possibilities

"... nothing can be gained except by calculation."

I have not mentioned the Campaign Game in this article, and this is with reason. An amalgam of the first two scenarios (1939 and 1942) actually conveys my beliefs as to the course which players of the Western powers should pursue. We must remember, though, that the Italian offensive is just as much a threat as it is an actual operational option; merely setting up the possibility of initiating it will cause the Axis players some concern as to which course they should take themselves in 1939. Too, the Balkan campaign posited for 1942 is ideally suited to this scenario as it presents a united front by all of the Allied powers against Germany instead of allowing that country to concentrate upon each in turn.

With regards to the Murmansk convoys and Lend-Lease, once the Axis declares war upon the Soviet Union, the British player (followed in 1942 by the American) will need to send the maximum allowance of BRPs per turn that she can afford. Without the continued survival of the Russian player, the Western Allies cannot hope to win. Remember, however, Great Britain must not send everything they have, as some BRPs will be necessary to replace losses and, at critical moments, to launch certain offensives. Generally, I concur that 1941 will see Great Britain on the defensive. But 1942 should see the British, as discussed earlier, attempting to complete the occupation of North Africa, while the Americans deploy and build their arsenal. In this year, the Americans should bear the toll extracted by Soviet BRP needs. Hopefully, with the opening of the new fronts in Italy and the Balkans, strident Russian demands for BRPs shall have started to level off as the Western Allies attempt to relieve German pressure in the East.

Perhaps the least understood country in THIRD REICH is Vichy France, primarily because it is

usually a "do-nothing" entity. It does perform, though, several important functions for the Axis players. First, of course, it covers the German player's southern flank in the West, limiting any Allied advance through Spain, as well as shielding the beach at U19. Second, it forms a reserve pool of troops, especially naval units. A careful eye must be kept upon Axis actions regarding Vichy, as any flow of German foreign aid to this country can only mean that the Axis plan to activate it. The only thing that can prevent this is massive British aid, something the English player may not be able to afford. What can Britain do? To be truthful-nothing much. Especially if Britain is committed to expenditures to Russia. The only Allied recourse is to endeavour to assure the destruction of the French forces before they surrender, with emphasis on the air units.

Conclusions

"I have never committed a crime. I have done worse than that: I have committed mistakes."

Rashness is not a virtue for any of the Allied players; their greatest advantage is that time is on their side. Eventually, if the Allied players have survived, the Axis will have reached the extent of its leash. Spread thin, they will find themselves forced onto the strategic defensive. Once this occurs, the initiative shifts to the Allied powers and, excepting limited German offensives, should be held by them for the remainder of the game. Early on in the game, the Allies are outclassed by the Axis in all but one category—naval units. So, in any concerted Axis assault, the results will be foregone.

At the start of the game, then, Allied players need to set themselves a realistic objective for their early years. As we have stressed, taking territory from the Axis, except in North Africa, is unrealistic. Economics will win the war, not military strength. The Allied goal must be to deprive the Axis of valuable BRPs. This is the intent of the Italian invasion, as well as the foreign aid to Germany's minor allies. They will have to match or exceed the Allied BRP expenditures to save Italy or activate her minors, BRPs they might rather use to pay for an offensive or purchase units. Other methods are available too. Whenever possible, inflict damage upon the Axis air units—especially those of Germany. These are expensive to build, yet they must have them.

As for British expenditures, after the fall of France, try to keep them minimal. The majority of your BRPs are destined to go east.

Illustration #5 The initial British troop deployment in Italy, including two armored units and two air units (at Taranto and Brindisi) and three fleets at Brindisi.



FULL SERVICE BOOTH

Attendees at this year's ORIGINS will have the opportunity to purchase virtually anything in The Avalon Hill Game Company inventory from our Parts Booth, down to and including the smallest item. For the first time ever, we will have a booth on hand to accept orders for individual game parts, magazine subscriptions, in-stock back issues, or the relatively obscure games that we don't normally bring to a convention. Merely place a "mail order" minus the postage costs and the mailman. Get a Replacement Parts List from our booth on Thursday or Friday, write down your selections, pay the sales clerk, and get a receipt for your order. Your order will be waiting for you on Saturday and Sunday in the same booth for you to claim. So take inventory now. See which of your games have worn or missing pieces that need to be replaced. Make a list. Check your GENERAL collection for any missing issues still available. Check that catalogue for the unmounted mapsheets, magnetic strips, game trays, variants, pbm kits, scenarios, magazine binders, and other accessories that you've always wanted but never got around to ordering by mail. Bring your shopping list to ORIGINS '87 and get it filled on the spot with no postage charges or mail delays.

AH Philosophy . . . Cont'd from Page 2

and teach us English. These people would take part in our games and would translate all the rules as they appear. Such games would also have an educational side to them—they will be a good lesson in practical English.

We hope that we will succeed.

There are many different plans, means and possibilities of making war and historical games more popular here. These games are our common hobby. The first step towards further popularization of them has been made by the article written by T. Machowski and the warmheartedness of the editors of The GENERAL, as well as the generosity of our American friends.

We have already sent individual thanks to all our contributors. But we think that we can't stop at this moment. We would like to do it in a much more official way. We think that human friendliness and warmheartedness should be talked upon and it should be stressed that such feelings help to build better relations and friendship between different peoples. They also create the solidarity and understanding necessary to help others. This is a kind of action that is necessary to all people all over the world.

The game itself becomes a thing trivial and unimportant, but to help others over the borders of the continents is a much more serious affair and you need a great American heart to be able to do it. We have witnessed your friendliness. If it is possible, I would like to ask you to publish in The *GENERAL* our official gratitude and thanks. It would be very nice if these thanks were published in the last issue published in this year and were connected with our wishes of a Happy New Year. The message would be quite short:

Merry Christmas and a Happy New Year to our Friends, war gamers in America and all over the world. We would like to express our gratitude and thanks for your help, generosity and kindness and for sending us many interesting and fascinating games. We would like to send you and your families our best possible wishes.—Tad Urbanowicz and the grateful war gamers in Poland, December 1986

At the same time we intend to organize an exhibition in "Groteka" in which we will present the games we were given with short explanations. It would be a Christmas exhibition decorated with

Christmas trees, candles, colors. I am very glad to inform you that we have received quite a few games produced by AH. They are completely new and can be used as a group, advertising material. The exhibition will be perhaps permanent and we hope to enrich it from time to time with new elements.

The war games connected with the Civil War in the USA are becoming increasingly popular in Poland. To meet this demand, we are planning to open a new special club. We intend to name it with the title of a very popular novel dealing with the period—*Gone With the Wind*—but we have not decided yet. We might call this club differently. Perhaps you can organize among your editorial staff an instant vote on how to call our new club?

This is about all present matters I wanted to write you about. I know that there is quite a lot of it, but I would not like to spoil and destroy the chance we were given by your article in The GENERAL and the precious help of the American players.

Yours faithfully, Tad Urbanowicz Krajowa Rada Upowszechniania Gier GROTEKA

Dear Rex:

Just so you and all of the gamers who have contributed to Groteka will know what has taken place, I want to relay the following information.

I have received letters, games, magazines and books for nearly one year. The contributions have come from all over the United States and also from England, Canada, Australia and Italy. To date, I have forwarded 17 packages to Warsaw containing more than 300 games, and I have five more boxes awaiting shipment containing over 100 more games.

I know there were gamers who contributed who had their doubts about the games being sent/received. I want to assure those who have not yet heard from the Polish gamers that they will. Anyone who has sent a letter, game or magazine has received a response from me acknowledging receipt. I also know, since I have received letters from several contributors, that they have received letters directly from Mr. Urbanowicz (albeit in Polish) acknowledging their receipt of the games.

I have received several letters from Mr. Urbanowicz personally indicating their great enthusiasm for the friendship and assistance which has been demonstrated by this project. When I first started out, I did not expect to get any response at all to my request; I cannot express my deepest gratitude on behalf of myself and the Polish gamers for all those who have contributed.

I would also like to relate the "procedure" in getting the games to Poland. The effort is really that of my entire family. When I receive the games, I repackage them for shipment to Poland and enclose a letter in each indicating the name and address of the contributor so that Mr. Urbanowicz is aware of those who have opened their hearts. After I have prepared the package for shipment, my mother takes the boxes to the organization she is associated with for shipment to Poland.

It takes approximately six to eight weeks for the packages to arrive, and any letter sent by Mr. Urbanowicz takes at least two to three weeks to reach its destination. Therefore, if some of the contributors have yet to hear from Mr. Urbanowicz, it is because some packages are still waiting to be sent and others are still in transit. At the time he wrote you, Rex, he had only received eight boxes.

As indicated supra, Mr. Urbanowicz's letters have been in Polish and my father (who is fluent in Polish) has graciously translated all the letters I have received. As a matter of fact, several of the contributors, having received letters in Polish, have forwarded them to me for translation which my father has done.

So, on behalf of the Polish gamers and myself, I want to say thank you to all those who have contributed and would like to indicate to anyone who wishes to do so at this time that their generosity will be appreciated and acknowledged.

Very truly yours, Thomas Machowski Oak Park, Michigan

[There follows a list of those who thus far have donated games to the Polish organization of wargamers. I understand that the Polish gamers are sending personal letters of thanks to each of these folk. I'd like to add my thanks to Mr. Urbanowicz and Mr. Machowski, and voice my pride that so many were willing to help others with a common interest. It shows better than anything that most wargamers are far removed from the subject they ostensibly study, that our hobby promotes comradeship and understanding rather than militarism. May it always do so.]

John Michalski Pete Ronza Moore, Oklahoma Las Vegas, Nevada Eric V. Snow Joe Bukal Jackson, Michigan West Allis, Wisconsin David Dekeyzer **Ernest Svacek** Monterey, California Katy, Texas Thomas Slizewski Bob Kendra Englewood, Colorado Macungia, Pennsylvania Tim Sebastian Clay Meyers Huntsville, Alabama Houston, Texas Tom and Bill Walsh Kim Meints Bethpage, New York Waterloo, Iowa John Loth Michael Collins Herndon, Virginia Bronx, New York Larry Hoffman and Jerry Corrick and Keith Poulter Thomas Arndt Cambria, California Minneapolis, Minnesota Richard Tucker Mark Weitz Minneapolis, Minnesota Metarie, Louisiana Kevin Thurneau Ian Duncanson Fairbault, Minnesota Littleton, Colorado David Wilma William Jongeward White Plains, New York San Francisco, California Greg VanHouten Paul Morrow Gulf Breeze, Florida Van Nuys, California Bob MacCary Douglas Chinn Bricktown, New Jersey Lanham, Maryland Michael LeClair Chris Geggus Baldwinsville, New York Essex, United Kingdom Gordon Ashacker Alfredo Giaroni Calgary, Canada Varese, Italy Adrian Pett John Muije Victoria, Australia Las Vegas, Nevada Victor Gerval Ed Hollman Minneapolis, Minnesota St. Cloud, Minnesota Bernado Figueredo John Zug Arlington, Virginia Ocala, Florida Ted Spas Eric Smith Helena, Montana Santa Barbara, California John Kennison Richard Banik Westminster, California Seattle, Washington Michael Kelly Paul Wanke Carpentersville, Illinois Lolo, Montana Steven Rodia Dan Zucker Kalamazoo, Michigan Staten Island, New York Military Studies Robert Vincent, for the Association Conflict Simulation U.S. Navy Academy Society Vallejo, California Annapolis, Maryland Steve Wooster Robert Chiang Sunnyvale, California Colorado Springs Colorado

There have also been some dozen anonymous donors, according to Mr. Machowski. To them, whoever they may be, our thanks as well.



BACK ISSUES

Only the following back issues of The GENERAL remain in stock; price is \$3.00 per issue (plus usual shipping and handling charges). Due to the low quantities of some back issues, if ordering please specify alternative selections. Below is a listing of each in-stock back issue by subject matter; game abbreviations are italicized and standard (a partial listing may be found on the "Opponent's Wanted" form on the insert of this issue). Type of article is indicated by the following abbreviations: H—Historical, DN—Designer's Notes, V—Variant, SR—Series Replay, S—Strategy, Q—Questions, P—PBM (postal), Sc-Scenarios, A—Analysis. The featured game for each issue is always the first one listed. Those printed in red indicate one-color reprints of previously out-of-stock issues.



```
14-3; AIW—H, DN, S, Q; TRC—S; 3R—S; STAL—SR; WAS—V; PB—Sc
14-5; SL—H, A, DN, Q; WS&M—A; TRC—S; MD—S; SST—S; 3R—S
15-2; PL—V, Sc; STAL—V; 3R—V; DD—DN; RB—S; VTP—S
16-1; AZ—Sc; S, DN; 3R—S; NP—S; PB—SR; 1776—S; WS&IM—S
16-1; AZ—Sc; S, DN; 3R—S; COJ—S; 3R—S; 1776—S; WS&IM—S
16-2; BIS—A, Sc, H, DN, Q; PB—SR; AK—S; 1776—S; WS&IM—S
16-4; MR—A, DN, V, Q; COJ—S; AR—S; TRC—SR
16-6; DUNE—A; DIP—V; OS—V; AZ—DN, Sc, SR; PB—A, PBM
17-1; W&P—A, DN, V, Q; 3R—S; COJ—S; MD—V; COJ—A; MR—V; LW—S; WAS—SR
17-3; AK—S; 3R—S; COD—S, Q; AF—A, DN; TRC—V; VITP—V; COJ—SR
17-4; FE—S, P, DN, V; MD—V, Q; COJ—SR; VTPS—S; 1776—S; WO—A; SST—V; NAP—S
17-5; CM—S, V, Q; RW—V; SL—V; STAL—V; PL—S; 3R—S, SR; CAE—V; KM—S; MR—S
17-6; STAL—S; WS&IM—V, SC; WAS—V; 3R—SR; SJ—S; TLD—Q; CL—S; VITP—S; TRC—S
18-1; FTW—A, Q; BIS—S; SL—S; DUNE—V; DIP—S; AK—A; PB—SR; AL—S; W&P—S
18-2; AF—A, Sc, Q; AK—V; 3R—DN; TB—V; SL—S, SC; AIW—V; VTTP—S; DIP—S; DIP—S
18-3; GOA—S, DN, V, Q; AOC—V, Sc; AK—S; VTP—V; SL—S, Sc; WS&IM—SR, P; DIP—S
18-4; GL—H, V, A, Q; SL—Sc, A; LW—V; W&P—SR; AOC—S, P; FE—V; WAS—S; AK—S
18-5; 3R—S, A, V, DN, Q; SJ—S, A, Sc; TRC—V; TB—V; RW—V; CL—A; DUNE—V
18-6; FT—A, Sc, V, DN; VITP—Q; MD—S; Q; SOTN—A, Q; SUB—Sc; BL—V
19-1; SOLA—A, V, DN, SR, Q; TLD—A, Q; 3R—S; SOLA—SR
19-1; SOLA—A, Sc, V, SR, Q; DIP—A; MR—Sc; GE—V; IV76—Sc; LRT—V, Q; SL—A
19-4; CIV—A, V, DN; CM—V; DIP—A; GL—V; LIP—A; WG—S; SL—A
19-6; VITP—PBM, SR; 3R—V, Q; DIP—A; FT—V; BIS—V; WSAIM—SC; SUB—V, Sc
10-1; GI—S, A, DN, V, Q; VITP—SR
10-2; BR—S, SR, DN, Q; SOLA—S; CIP—A; WTX—S; CIP—A; VIP—A; CIP—A; VIP—A; SL—S
10-3; FRED—S, N, Sc, Q; PB—A; 1776—Sc; DWTK—S, V, Q; DIP—A; PL—V
20-3; FRED—S, N, Sc, Q; PB—A; AR—S; SL—S; DIP—A; SR—S, SR—S, SR, SR, SR, SR, SR, SR, DN, Q; SOLA—S; CIP—A; SIP—S; CIP—A; SR—S, SR, SR—S, SR, DN, Q; SOLA—S; CIP—A; SIP—S; CON—V, S
20-4; FTG—S, A, Q; SST—PBM, V; AW—A; DUNE—PBM, DIP—A; SL—DN, A, Q; BL—S; KM—V
20-5; BR—S, SR, DN, Q; SOLA—S; CIP—B, SP, CIP—A; SIP—S; CIP—S; CIP—
```

The Baker's Dozen

Disregard the usual price of a back issue; why pay \$3.00 when you can pay only \$1.00. And that's just what this offer comprises-back issues for only a \$1.00. But . . . you must order twelve back issues, and enclose payment of \$12.00. And, as a bonus, you can select a thirteenth issue as our gift to you. The thirteenth issue must be among those currently in stock as listed to the left. These need not be different issues; you may take thirteen of one issue if such is your choice. So, whether you are a new subscriber who'd like to fill in the couple of years before discovering the hobby's oldest and best magazine or a longtime friend who'd like to replace some missing or worn issues, pay a third of the cover price and pick up a twelve-pack-and the thirteenth's on The Avalon Hill Game Company.

Buy A Game

The GENERAL has, for over twenty years, carried the best articles on strategy and tactics in our hobby. Each issue has featured an Avalon Hill game for our discriminating readers, offering them tips and tricks, history and design insights-often only weeks after the release of the game. Many readers have commented on how this improved their pleasure and ability in that game immensely. Now, we'd like to offer that same enjoyment in one sweet package. For a limited time, when you order a game direct from The Avalon Hill Game Company, you can select any one issue from our back stock (as listed to the left) to be sent along free. Have a hankering to try your hand at B-17, order the game, and select Vol. 20, No. 6; maybe care to see what the excitement is with ADVANCED SQUAD LEADER, pick up Vol. 22, No. 6. This offer extends to any games in our vast lineone free issue for each game ordered by mail or phone. However, we must impose a limit of six such free issues to a customer.

Support Your Local Store

And, if you do not wish to wait to begin punching out those pieces, we'd like to acknowledge all the many readers who buy at local retail outlets. So, the above offer of a free back issue of The GENERAL to anyone who may buy an Avalon Hill game is extended to those who can show that they have purchased an Avalon Hill title within the past sixty days (a dated sales receipt bearing the name of the game and the signature of the store clerk is sufficient). Simply stick that receipt into an envelope, along with the form showing which free issue you'd like, and send it to The Avalon Hill Game Company (4517 Harford Road, Baltimore, Maryland 21214). We'll send you the back issue by return post. Again, please remember that this offer is limited to six games (meaning six back issues). And, while you are making your purchase at your local retail outlet, let them know how much you appreciate their stocking Avalon Hill products.

Reprise

So, three offers to thank you for playing Avalon Hill games, and for reading The GENERAL. Please remember that usual shipping and handling fees of 10% (20% for Canadian orders; 30% for overseas orders) apply to all mail orders of back issues and games; Maryland residents please add 5% state sales tax. Too, it will not be possible with these offers to allow alternate selections.

THE QUEEN IN GERMANY

More Targets for B-17

By Doug Bleyaert

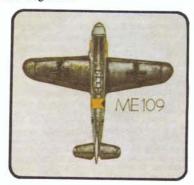
The roar of engines fill your ears once again as you climb aboard your B-17. The adrenaline flows freely through your body as you taxi off to your next mission. Today's mission is to bomb the U-boat pens at Saint Nazaire. As you get up to 14000 feet and join up with the rest of your squadron you secretly wish that it wasn't just the U-boat pens you could bomb. To attack the shipyards themselves is what you want—taking your bombload right to Hitler's doorstep.

B-17 gives the solitaire player many choices to bomb and a good system of selecting targets—not often were the pilots consulted as to where they were going to bomb. Even though there are plenty of targets there is always that yearning for more, especially for some in Nazi Germany itself. Admittedly, to bomb the Reich and return to brag has a certain attraction to it.

In looking over WW2 maps, the historian of the air war will find a great many targets to choose from other than the ones provided by the original game system. One crucial area that the Allies bombed heavily was the industrial heartland of Germany—the Ruhr Valley. The cities of Bonn and Cologne were attacked a number of times. A little farther into Germany were the cities of Kassel and Hamburg and Schweinfurt (with its strategic ball-bearing

factories). None of these were included in the game *B-17* because during the period which the game spans (November 1942 through May 1943), these were not the American targets. Still . . . the lure of new challenges is enticing for solitaire players.

The alternative mission list I offer is by no means exhaustive. Nor does it replace the original *B-17* list (Table G-3), but acts as a supplement to it. The following rules should be used in conjunction with the new target list:



1) Since the raids on the second list are considered riskier (and therefore rarer) than those included in the game, they will not be selected by higher command for you as often. Before the target selection, one die is rolled: "1-5"—use the original Table G-3; "6"—use the new mission list below.

2) Planes flying the longer missions were afforded better fighter cover near England due to the importance of these missions. This can be reflected by adding "+2" to the roll for fighter cover (Table G-5) in Zones 2, 3 and 4.

3) On longer missions, fighters had a tendency to cover the bombers as long as they possibly could—sometimes to their own demise due to fuel shortages. On the outward leg in Zone 5, a die is rolled for fighter cover. On a roll of "6", poor cover is available in Zone 5 (a roll "1-5" indicates

no cover). This represents those few fighters that would stay with the formation for a few minutes longer than usual. There is no die roll for cover in Zone 5 on the return to England (although rule 2 above applies for the return flight).

4) Once the bombers reach Germany, the probability of enemy fighter waves was greatly increased. With the bomber stream on radar, and the proximity of fighter bases, enemy opposition in 1943 was stiff. To reflect this fact, the bombers flying in the low squadron of the formation receive a +2 modifier to the die roll for number of German fighter waves (Tables B-1 and B-2). There is no modifier for planes in the high or middle squadrons. This modification takes effect throughout the time that a bomber is in Germany (defined on the Flight Log Gazetteer for each target).



Taking a glance at the Gazetteer, the modifier to the roll on Tables B-1 and B-2 for a trip through Germany might look low to many. However, at this point in the war, such raids on Germany were usually large scale, which meant that any individual bomber had less chance to be attacked even though there were more enemy fighters buzzing around.

So, for those who might have made the Grand Circuit—bombing every target on Table G-3—we are proud to offer these new targets. Good luck.

	IISSIONS 11-25	
ROLL	ā	TYPE
11		Aircraft
12	Amsterdam	Aircraft
13	Cologne	Industry
14	Cologne	Industry
15	Bonn	Industry
16	Bonn	Industry
21	Dusseldorf	Industry
22	Saarbrucken	Industry
23	Saarbrucken	Industry
24	Oshabruck	Aircraft
25	Frankfurt	Industry
26	Frankfurt	Industry
31	Mannheim*	Industry
32	Mannheim*	Industry
33	Kassel*	Aircraft
34	Kassel*	Aircraft
35	Karlsruhe	Aircraft
36	Munster	Aircraft
41	Offenburg	Aircraft
42	Hamburg*	U-Boats
43	Hamburg*	U-Boats
44	Braunschweig*	Industry
45	Braunschweig*	Industry
46	Hannover	Industry
51	Hannover*	Aircraft
52	Schweinfurt*	Industry
53	Schweinfurt*	Industry
54	Stuttgart	Industry
55	Freidrichshaven	Industry
56	Freidrichshaven	Industry
61	Mageburg*	Industry
62	Mageburg*	Industry
63	Leipzig	Aircraft
64	Brandenburg	Aircraft
65	Berlin*	Industry
66	Berlin*	Government

TARGET CITY	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9	ZONE
Amsterdam	-2/W	-1/W	-1/W	O/N	0		8	9	10
Berlin	-2/W	-1/W	-1/W	-1/N	-1/N	0/G	O/G	O/G	+1/G
Bonn	-2/W	-1/W	-1/W-N	-1/N	O/G	0,0	0/0	0/0	1 1/0
Brandenburg	-2/W	-1/W	-1/W	-1/N	-1/N	O/G	O/G	O/G	
Braunschweig	-2/W	-1/W	-1/W	-1/W	-1/N	0/G	0/G	0/0	
Cologne	-2/W	-1/W	-1/W-N	-1/N	O/N-G	0,0			
Dusseldorf	-2/W	-1/W	-1/N	-1/N	0/G				-
Frankfurt	-2/W	-1/B	-1/B	-1/B	-1/B-G	O/G			
Freidrichshaven	-2/W	-1/B	-1/B	-1/B	-1/B	O/B-G	0/G		
Hamburg	-2/W	-1/W	-1/W	-1/W	-1/W	0/G	O/G		
Hannover	-2/W	-1/W	-1/W	-1/W	-1/N	0/G	0/G		
Karlsruhe	-2/W	-1/B	-1/B	-1/B	O/B-G	O/G	(4)		
Kassel	-2/W	-1/W	-1/W-N	-1/N	-1/N	0/G			
Leipzig	-2/W	-1/W	-1/W	-1/N	-1/N	O/G	0/G	O/G	
Mageburg	-2/W	-1/W	-1/W	-1/N	-1/N	0/G	0/G	0/G	
Mannheim	-2/W	-1/B	-1/B	-1/B	-1/B-G	O/G			
Munster	-2/W	-1/W	-1/W-N	-1/N	-1/N	0/G			
Offenburg	-2/W	-1/B	-1/B	-1/B	-1/B	O/B-G			
Oshabruck	-2/W	-1/W	-1/W	-1/W	-1/N	O/G			
Saarbrucken	-2/W	-1/B	-1/B	-1/B	O/B-G				
Schweinfurt	-2/W	-1/W	-1/W-N	-1/N	0/G	0/G	0/G		
Stuttgart	-2/W	-1/B	-1/B	-1/B	O/B-G	O/G	O/G		_

Dear Mr. Martin:

I admit that Mr. Murillo's letter in The GENERAL (Vol. 23, No. 3) struck me in need of response. I feel that he misunderstands the value of the analysis articles as they appear in The GENERAL. One has only to read his letter to realize that he does not look upon them as play guidelines, but that he and his cohorts see them as officially sanctioned ideals (i.e., the ultimate answer).

Perhaps he first needs to realize that no plan is perfect; the vagaries of the die see to that. Then why write this type of article? I believe that most writers intend their submissions be the grounds for further discussion, not to terminate it! Unfortunately, sometimes the opposite does happen.

The continuing proliferation of game titles is to a great extent responsible for this lack. Unless a game ignites the imagination of a significant portion of The GENERAL's readership, then the article(s) submitted by the few interested parties tends to prevail. Occasional players, lacking the volition to study some of the more obscure titles, when forced to play them simply follow the printed material verbatim.

Mr. Murillo indicates that he is precisely this type of player, as we all tend to be with regards to titles that only minimally interest us. His statement regarding BULL RUN justifies this conclusion, as he states "Result: it was probably the first and last time that game will ever come off my shelf, unless I dump it at ORIGINS next year." It should be obvious that no one can really grasp the potential of a game, nor judge the correctness of an article with only one playing.

From my standpoint, I can only conclude that the problem is not the type of article that is published, but rather a failure to understand its intent. If players would take the time to experience in depth some of the marginal titles, as has been done with THIRD REICH for instance, then a valid conclusion as to a game's worth could be reached.

In conclusion, RUSSIAN FRONT provides an example of what I am inferring. Mr. Murillo states that he, "was setting up the Russian defense and the German attack by the numbers' after three turns . . . the 'magic' was gone already." I am currently involved with a PBM playing of this same title against an experienced opponent who completely disregarded the suggestions in The GENERAL. When I questioned him about this, he simply averred that he did not see the Russian set-up as that critical. Going into the November 1941 turn, I have just barely achieved a S1 level of victory (a marginal Soviet victory). It seems obvious that this course would not have occurred to Mr. Murillo, as the articles seem to stifle his own creative abilities with their "authoritativeness".

Craig F. Posey Daytona Beach, Florida

Dear Rex:

I'd like to make a few comments on the "KG Pieper" article in Vol. 23, #3. In my experience, it is widely acknowledged that the Allies have the better chances. The way I usually deal with this problem is to bid for sides: each player secretly bids a number, and the player who bids lower plays the Germans, and gets to use that number of extra units in the 16AM turn (the order in which the extra units are received is 12SS/25, 12SS/26, 1SS/1, 1SS/2, 12SS/12, 1SS/Peiper, Fuh Escort, 2SS/3, 2SS/4, 2SS/2, 9SS/19 and so forth). While simple, this method is clearly artificial, but it *does* directly solve the problem with the play-balance. Mr. Parker's historically oriented modifications, though undoubtably more palatable to the simulators, have probably not been playtested enough to give a reliable impression of their effect on play-balance. Nonetheless, some of them introduce little or no complication and so do not detract from BULGE a modern analogue of the old-time AH "players" classics'

Regarding the ZOC rules, if Mr. Parker's 7.4 is used, then any unit which ends its movement adjacent to an enemy unit (except across a cliff hexside), and chooses not to attack, should exert no ZOC in the opponent's player-turn immediately following. This is based upon Mr. Parker's rationale that such units are dug in defensively. (Incidently, surely he meant to say "any or none of the enemy-occupied hexes" rather than "any or none of the units"; otherwise, a contradiction of rule 9.8 slips in by the back door.) Re Mr. Parker's rule 7.5, it would make more sense that an engagement/disengage-

Letters to the Editor ...

ment penalty be paid only in enemy ZOC (e.g., "The road movement cost for German infantry is one-third MP, except in enemy ZOC where it is one MP.")

With regard to divisional combat coordination, it makes sense that regiments which have trained together will fight more effectively together, but the suggested DRM is too all-ornothing. As an alternative, one could add one combat factor to the combined strength of two regiments of the same division fighting together, three to the combined strength of three regiments of the same division. This would encourage divisional integrity in a more gradually scaled way, encouraging the player to make historically reasonable tactical decisions without feeling straight-jacketed.

Re Corps Area Congestion, this rule obviously does not aid play-balance, but if it's historically justifiable, it can be swallowed, especially if the divisional integrity bonus I presented above is being used.

Regarding KG Peiper, it's not too much more to remember, and it adds a lot of color. Loss would have a demoralizing effect on the Germans, so how about the Allied player earning one VP for killing it off? As for the Surrender rule, well, a few more die rolls won't slow the game down much.

Re Mr. Parker's 24.2, it will invalidate my usual strategy of sending everything to the south and outflanking the rough terrain in the northeast quardrant. It's a question of intended viewpoint: am I being constrained to Hitler's objectives or may I simply try to out-do (perhaps relative to my own criteria) the historical German results, as Mr. Parker suggests in the paragraph between "Historical Realism #10" and "Zones of Control" on the first page of his article?

Re the changes in strengths, in set-up locations, and in the reinforcement schedules, this research makes the BUGLE '81 more of a simulation without making it any less of a game, so these clearly should be used. As for the improved positions for SS8, SS10 and LL23 and the fort at Monschau, these don't help playbalance, but nonetheless must be accepted with the hope that the changed strengths will compensate.

As for pursuing across rivers, that certainly was hard to swallow, and Mr. Parker's suggestion is a step in the right direction. If using his suggested 7.4, an alternative (but unfortunately much more complicated) possibility would be to allow any unit which was in a hex from which an attack was made, but which was withheld from the actual combat, to advance using as many MP as it did not use during the movement phase, subject to the usual terrain and ZOC restrictions, and using a road bonus factor of one. Units which did attack could not advance more than one hex.

Re the delection of the DRM for artillery support, let me preface my remarks by explaining my bias. I have played the "Outbreak Scenario" some 40 to 50 times; the campaign game never. In my opinion this suggestion will hurt the German player terribly. On the other hand, Mr. Parker makes a case for the ahistoricity of the current rule, which does (I must admit) produce a lot of "factor fidgeting" in attempts to produce 20-factor groups. As an alternate rule which would increase playability, I suggest reducing the defending combat strength (before terrain modification) by one factor for each Nebelwerfer attacking (one-half factor if defending in woods, rough, fort, fortified town, improved or town hex). If the defensive strength is thereby reduced to zero, the defenders must either flee in terror (automatic result of DB5/AA5) or hold at all costs (defend at 8-1 -2 odds, and if surviving the battle exchange one of the defending units for the smallest unit of the same type in the "dead pile"). If only artillery types are defending, and they are reduced to zero, the defender has no choice and the result is automatically DE/AA5. If the defender chooses to hold at all costs, the types of units are only four: armor, armored cars, motorized infantry, all others.

With respect to the German fuel problems, ignore this rule for the "Outbreak Scenario" unless the 15th Army Offensive has occurred. And as for infantry advance after combat, well, what the heck; kick us Krauts again, Danny, we're used to it! Seriously, though, it's reasonable and affects playability very little, so let's incorporate it.

Overall, I think Mr. Parker's changes clearly

unbalance the "Outbreak Scenario" even further against the German player. Historically, this is probably quite correct, but it makes the game less appealing. I think I'll still be using bidding for sides, and I personally will be bidding higher than before!

Bill Salvatore Water's Landing, Maryland



Dear Rex

Many thanks for publishing my SUB-MARINE article. Please permit me to correct some errors (mine as well as yours) which crept

- The Dutch, French and other Allied boats lost alongside the British were under Admiralty operational control, but were not commanded by British skippers or crewed by Britons.
 The 21 ships lost off Norway were not
- The 21 ships lost off Norway were no all warships.
- 3. Further research reveals that the British Mk VIII torpedo had a 750-pound warhead (later 805 pounds); the figures quoted in the article referred to older and rarer types, respectively. A more recent victim of a Mk VIII was the Argentinian General Belgrano—not bad for a torpedo first introduced in 1928.
- The 3-inch guns on Sealion and her sisters fired 16-pound shells.
- 5. The Torpedo Detonation Tables for the German cruisers in scenario B1 should read: 21 32 54 42 66 66 etc.
- In scenario B3, Thorn's speed rises to "3" once Tigris has been detected.
- In scenario B5, Franco Martelli (note the spelling) is a T3 Tanker with a speed of "3"; she was carrying U-boat fuel.
- In scenario B6, Bahai should read Bahia and the convoy speed in scenarios B6 and B8 is "3". The reference to Tigris should be changed to Trident.
- 9. In scenario B10, Kuma's speed is "6". 10. In scenario B11, Stratagem's ballast tanks contained fuel to increase her range; the comments about economy measures referred to the deleted Porpoise-class minelayer submarines. Whether leaking fuel betrayed her is unkown, but her survivors escaped from under water as she could not be raised off the bottom.

Charles Markuss Bolton, England



Dear Sirs.

My complete SL-GI library sat boxed in the attic for over a year. The advent of ASL made it seem outmoded; it had lost its appeal for me. I turned my spare time and money to further college courses, and to the study of martial arts, rather than an investment in ASL. I had even let my subscription to The GENERAL lapse and drifted completely away from wargaming!

It was on a whim that I renewed my GENERAL subscription; one look at your PARATROOPER ad and I knew it was time to break out the Visa Card and order up some fun. I now have ASL, BEYOND VALOR and PARATROOPER, and although my time allotment is still small, I am again enjoying my wargames as much as I did when I started 17 years ago.

ASL is excellent; PARATOOPER is just grand. I especially like Board 24, but I purchased BEYOND VALOR largely to get the German OB to use with YANKS. That is until I got "Timoshenko's Attack" in The GENERAL (Vol. 23, No. 3). The three separate boards, the German force division, the Russian board selection; all these creative uncertainties make this a fantastic scenario—especially given my solitary situation. It also confirmed my good investment in Boards 10 and 11 so long ago. The excitement of having the German needing to win three battles while the Russians only need one is a great idea. Another BEYOND VALOR scenario that I

Another BEYOND VALOR scenario that I have come to enjoy is "Red Packets". It is small, desperate and encompasses such a wide range of infantry and vehicle types. This style of scenario—small, quick, and vicious—is the best way to spend what little time I can now allocate, yet I receive an excellent return in excitement.

Thanks so much for cleaning up SL with ASL. Oh yes... please do bring on the Yanks, the Italians, and the British (hold the Montgomery counter though).

Joe Abrisz Burlington, Iowa

Dear Sirs

To the staff of the GENERAL, I cannot say how pleased I have been with the overall quality of your magazine over the course of the past six years that I have purchased (and finally subscribed to) it. I for one especially enjoy the articles on strategy and tactics. I believe that every master plan has a solution. And your articles help provide food for thought that can make even the 50th playing of SQUAD LEADER scenario #1 interesting.

I don't know how other people feel, but I

I don't know how other people feel, but I do believe that although you cannot please all of the people all of the time, your magazine at least makes an honest effort at trying. Thank you for that effort and keep up the good work.

Brent Henry Borden, Ontario

n, Ontario



Dear Editor:

One cannot help but notice that many purchasers of the new ASL Rulebook have been going to extreme efforts to protect their costly investment from wear and damage. Frequent letters to the Editor have mentioned the use of ring-shaped hole reinforcers. These have the drawback of adding dramatically to the page thickness, thereby limiting the number of pages the binder can hold.

A better alternative that I have discovered along with other ASL players in my area is to have the entire page edge reinforced by a professional laminator. Both sides of the page are covered with a protective strip along the ringmount edge. New holes are drilled and the pages are reinserted into the binder with little appreciable gain in thickness.

In addition, I have had the dividers fully laminated since they receive heavy handling. Even the scenario cards can be laminated on both sides to a full 8½ "×11" format and drilled for the three-ring binder.

The cost? It is cheaper than one would expect. I pay approximately \$.30 for a fully laminated page (divider or scenario card) and \$.03 a page for edge reinforcement. For me it is better than having my investment crumble after a few months heavy use.

Owners of the ASL Rulebook interested in such a method of protecting their ASL equipment (or that of any other TAHGC game product) can check their local Yellow Page Directory under "Laminations—Plastics and Paper" for prices.

Ted Bleck Farmington, New York



Dear Sir,

In Vol. 23, No. 2 of The GENERAL you discussed the problems the company faces in providing for the continued use of the boards included in the original series of SL gamettes. I understand that the ASL modules must use new boards and these are, of course, welcome additions. However, I believe that sales of the SL gamettes must inevitably decline and the boards will eventually join most of the counters in semi-retirement. A few scenarios per gamette won't help matters much and those of us who have followed your efforts through COI, COD and GI will see our investments further devalued.

How about producing some sets of ASL scenarios along the lines of the Series 100, 200, 300 and such to be played on the old boards. If it is felt that sales are not likely to justify this, at least try to provide some through The GENERAL. In particular, please continue the conversions of the older scenarios to ASL standards. It is very pleasant to see old favorities reappearing in new guise.

I don't mean this as criticism of the change to ASL. I am in the process of coverting and am very pleased with what I have found. Just to own such a superb product is a joy. But, please spare a few thoughts for those who have gone the distance with you and keep the full potential of ASL alive.

Paul Clawson Liverpool, England

FLYING LESSONS FROM THE BARON

Updating RICHTHOFEN'S WAR

By Michael Anchors

Back in Vol. 19, No. 6, in an article entitled "A Historian's Guide to AH Wargames", Seth Owens made a plea for "some Tom Oleson" to rescue RICHTHOFEN'S WAR from obsolescence. He advocated simultaneous movement and inclusion of the optional Maneuver Cards as standard features. Now that Mick Uhl has put physics back into air war games with KNIGHTS OF THE AIR, it is high time to refurbish that old WWI classicbut is Owens' formula the best? Actually, RICHTHOFEN'S WAR is so much fun already, I hate to louse it up making it more "realistic". Anyway, what is so realistic about complicated written movement orders? Let's try something new! Throw away your pencils, lads. Get your hands around the stick and your feet on the pedals. We are going to

Variant

All movement and combat rules of the Tournament Game in RICHTHOFEN'S WAR are in effect except as below:

- 1.0 The Aircraft Status Pad (ASP) for each aircraft in play now contains a set of *controls* as well as the Altitude track and other data.
- 1.1 The "Current Speed" marker on the Speed track represents the *throttle* and regulates engine speed. (It never was a good reflector of airspeed.) All the old rules apply: Speed can be increased or decreased by one or two movement points per turn; Speed cannot be less than Minimum Speed or greater than Maximum Speed; and so forth.
- 1.2 A dummy counter, blank side up, represents the *pedals*. Place to the right, left or directly on top of the word "Maneuver Schedule"; this indicates right, left or neutral rudder respectively.
- 1.3 A second dummy counter, representing the *stick*, is placed in or adjacent to the hexagon figure below the word "Schedule". When the stick counter is moved forward toward the word "Schedule", the elevators are depressed and the aircraft dives. Ease the stick back, and the aircraft climbs. Right stick in addition to right rudder effects a right turn. And so forth
- 2.0 At the beginning of the game, the controls of all aircraft are set in any position desired by the owning player.
- **3.0** On its turn to move, each aircraft must be moved according to the positioning of its controls. (See the Control Effects Chart in Figure 1.)
- 4.0 The new Turn Sequence is as follows:

FIRST SEGMENT

- 1. Movement Phase. Player "A" moves his aircraft one by one according to the position of his controls. The controls of aircraft cannot be altered before or during movement of the aircraft counter. As each aircraft completes movement, its controls may be repositioned to determine movement for the next turn.
- 2. Attack Phase. Player "A" executes attacks, if any, by firing his machine guns.
- 3. Defensive Fire Phase. Player "B" returns defensive fire, if possible.

SECOND SEGMENT

- 4. Movement Phase. Player "B" moves his aircraft.
- 5. Attack Phase. Player "B" executes his attacks.
- 6. Defensive Fire Phase. Player "A" returns fire, if able.

- **5.0** Players may inspect the ASP of enemy aircraft *only* during the Attack Phase of their own segment. In other words, a pilot is not permitted to know the position of the controls of enemy aircraft when setting his own controls (*Exception:* ADVANTAGE). Of course, a player is always entitled to know the altitude of enemy aircraft.
- **5.1** ADVANTAGE. A player can see the ASP of an enemy aircraft at times other than his own Attack Phase *only* if one of his aircraft "has an advantage" over it. This occurs when the enemy aircraft is within the forward 120° arc, seven-hex range and within 250m altitude of the friendly plane (i.e., within the field of fire of an imaginary Fe-2 in the position of the friendly plane).
- **5.2** If two opposing aircraft have advantage over each other, the advantage of both is cancelled.
- **5.3** A plane can possess the advantage regardless of its ammunition or damage status.
- **5.4** A player must move his non-advantaged aircraft and set their controls *before* looking at the ASP of disadvantaged enemy aircraft.
- **6.0** If the controls of an aircraft are found to be in a position other than those shown in Figure 1 (or Figure 2 if in play), the opponent may reposition them in his favor.
- 7.0 Optional Unexpected Maneuvers

Using the above variant, the optional Unexpected Maneuver cards (available from The Avalon Hill Game Company by mail order) can be used according to the rules supplied with them. At the start of

the Movement Phase, aircraft that were attacked in the previous Attack Phase may choose to *ignore* their controls and go through the ritual of drawing cards and selecting a maneuver. A reasonable addition to the rules would prohibit aircraft with damaged controls (Critical Hits #5, 7, 8 or 9), dead engines or a wounded pilot from performing Unexpected Maneuvers. In addition, planes that exceed Maximum Dive +200m in the course of a Nose Dive or Spin ought to roll the Overdive Penalty.

Players may have more fun using their controls to generate Unexpected Maneuvers instead of the cards. In this form, pilots of aircraft that have been attacked may change their controls to any of the Unexpected Maneuvers shown in Figure 2, during a special "Maneuver Phase" that would follow the Defensive Fire Phase of their opponent's Turn Segment.

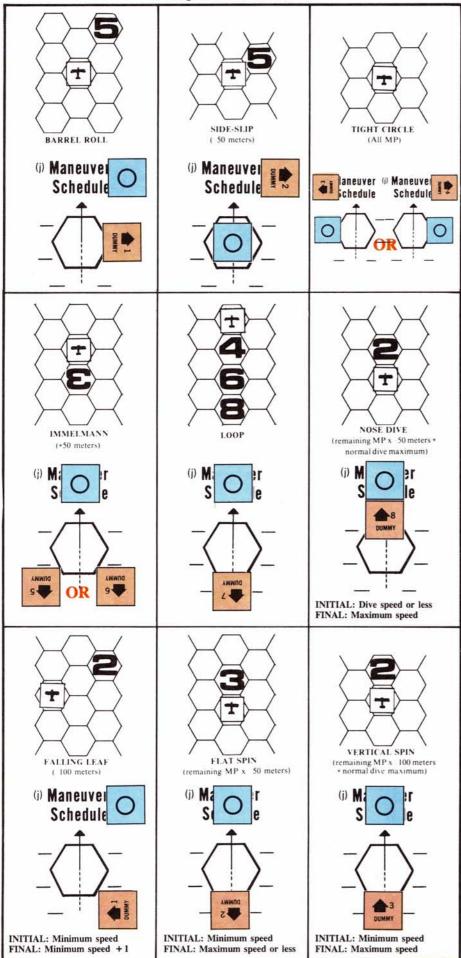
Each plane that attacked the maneuvering plane can attempt to follow its quarry by rolling one die. If the die roll is equal to or less than the firing range, the attacking plane may alter its controls to one of the Unexpected Maneuvers or to any position that would allow it to get a shot on the defending plane next turn. The die roll is modified as follows:

Maneuver Schedule	DRM
A	+2
В	+1
C	0
D	-1
E	-2
Ace Attacker	-1

Control Effects Chart

	Must make at least one LEFT turn and no right turns.	May NOT turn.	Must make at least one RIGHT turn and no left turns.
Must climb 50m	laneuver Schedule	(i) M Fr	(i) Maneuver Schedule
or more, if able.			
May not climb. May dive 50m.	Schedule	(i) M er le	(i) Maneuver Schedule
Must dive 100m or more.	Maneuver Schedule	(i) M le	(i) Maneuver Schedule

Unexpected Maneuvers



If the attacker fails the die roll, he may not alter his controls and must proceed six hexes straight ahead before making any turn, just as in the card variant. Unlike the card variant, however, after performing one of the Unexpected Maneuvers, aircraft in this variant must move straight ahead to the limit of their movement points without turning.

Note that for each Unexpected Maneuver, one or both of the control counters is turned arrow-side up to denote that the control is held longer in position or more widely deviated than for the usual turn or climb. In some cases, the arrows show which way the controls are moved in sequence in a complex maneuver. For play in the game, it is sufficient to memorize the position of the counters as a simple symbol for the maneuver intended.

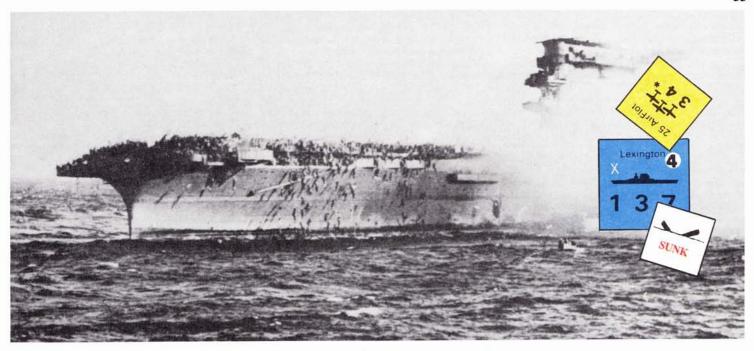
Some maneuvers require that the aircraft be at a certain speed to *initiate* the maneuver. It must attain that speed, of course, by increasing or decreasing speed by two movement points per turn—not just moving the Speed Marker back as in the case of a dive. When the maneuver is completed, the Speed Marker is immediately moved to the specific *final* speed. Altitude loss for the Nose Dive and/or Spin is based on the final speed. Players must use some foresight in planning for maneuvers and executing them if they are not to exceed Maximum Overdive and crash.

With the above, you have as much control of your aircraft as can be expected in any boardgame on this period to date. For the real aficionados, it should prove a challenge; to the novices, it should prove a revelation on how these old "crates" flew. But for all, it should prove fun.

SO THAT'S WHAT YOU'VE BEEN PLAYING

Titles	Titles Listed: 93		Total Responses: 384					
Rank	: Title	Pub	Rank Last Time	Times On List				
1.	Advanced SL	AH	2	7	4.1			
2.	Squad Leader	AH	- 5	36	3.6			
3.	Third Reich	AH	7	36	2.9			
4.	Beyond Valor	AH	9	2	2.7			
5.	Russian Campaign	AH	6	36	2.4			
6.	Paratrooper	AH	-11	2	2.0			
7.	B-17	AH	3	4	1.9			
8.	Flight Leader	AH	4	4	1.8			
9.	Panzer Leader	AH	10.22	1	1.7			
10.	VITP	AH	16	2	1.7			
11.	Submarine	AH	-	1	1.6			
12.	Up Front	AH	1	18	1.5			
13.	Bulge '81	AH	17	3	1.4			
14.	Diplomacy	AH	10	8	1.3			
15.	Longest Day	AH	-	1	1.3			
16.	Flat Top	AH	14	5	1.2			
17.	Guns of August	AH	20	3	1.2			
18.	War & Peace	AH	_	1	1.1			
19.	PanzerBlitz	AH	_	1	1.0			
20.	WS&IM	AH	_	1	1.0			

Besides the usual standbys—the likes of SQUAD LEADER, THIRD REICH, B-17 and RUSSIAN CAMPAIGN-quite a few unexpected titles cropped in our regular survey of what the readership is playing. Most pleasing, since we've several fine articles on them we were planning to print soon, are the reappearance of PANZERBLITZ and PANZER LEADER. Although over ten years old now, they obviously are still engrossing enough to keep both new and old players intrigued. SUBMARINE, due to its recent coverage, resurfaces; and the interest in WS&IM and W&P shows how well the readership can anticipate our articles, since the last issue carried fine pieces on both of these games. The high percentage rankings for ASL and SL indicate that both systems have their hard-line adherents-a fascinating struggle for the dominance of the minds of tactical wargame fans



PILOTS, MAN YOUR PLANES

A Commander's Notebook for VICTORY IN THE PACIFIC

By Robert D. Harmon

For a game as simplified in concept as VICTORY IN THE PACIFIC—no minor achievement given its scope—it offers an amazing variety of strategies to its players. This has caused some controversy in past GENERALs (beginning with Vol. 14, No. 4), for suggested strategies have been many.

The rules, and format, are deceptively simple. A game that involves a hundred-odd ships, each capable of reaching across half the board, will not be as simple when strategy is considered.

The rules have been simplified to the point where decision-making, not mechanical complexity, is the order of the day. Thus, your conduct of *VITP* will be an exercise in common sense—what you do, rather than how.

The format of this article addresses VITP thus. True to the "Commander's Notebook" pattern which I have used in the past, the game is addressed piecemeal as individual events or components are examined in the Critical Issues chapters. Each Critical Issue is, then, a bite-sized piece of VITP, for any article trying to present all possible strategies could very well be unpalatable.

CRITICAL ISSUE #1: Climb Mt. Nitaka

The Pearl Harbor Raid Force is potentially the largest (and certainly the most important) entity on Turn One. Certainly, the Imperial Japanese Navy (IJN, for short) will find that Raid Force organization will affect all first-turn strategy. Usually, the rest of the board gets what's left.

Two general factors in IJN first-turn strategy: First, this turn must give the IJN a head start on attrition, taking advantage of Allied vulnerability;

Second, the IJN should stake out as much territory as it can, while Allied ships are still restricted.

A third factor—points of control, or POC—is considered only indirectly on Turn One. The IJN won't be able to reach the board-edge areas that

turn. But, the main consideration is long term POC, and the surviving Allied fleet will determine how many POC they can defend.

Thus, objectives for the Raid Force:

- 1. Maximize damage to US ships at Pearl Harbor.
- Guarantee IJN staying power in Hawaiian waters in order to follow up the raid.
- Go the historical raid one better by sinking any US carriers offering battle, day or night.

Simple enough, in theory. However, enforcing the first objective requires the six biggest IJN carriers. Achievement of the second and third objectives will also require a substantial surface fleet. The appearance of one or two US task forces, combined with the Hawaiian Islands patrol and the raid survivors, will mean that the Raid Force could face ten US cruisers, plus one or more battleships.

The strike on Battleship Row could suffer bad luck; this must be allowed for, in a game with this much dice rolling. The surviving American battleships could seek revenge in conjunction with the carriers, a factor of chance rather than IJN strategy.

Such luck can be nullified if the Raid Force has enough strength to face a day or night battle, with equal forces or better. Such a Raid Force will have to include the six biggest IJN carriers, which are needed to maximize the strike and deal with the US carrier threat. Such a Raid Force should also include the six IJN battlecruisers, the only battle units able to join the Raid Force, and not less than ten cruisers.

Such a Raid Force can try to pre-empt more than the US battle line. The IJN can well afford an even exchange of carriers on Turn One. The IJN has six carriers and three light carriers, with two or more CVs and three CVLs arriving in the next two turns. The US has to make five carriers (six, if you count the Wasp on Turn Four) last until the sixth turn. The US carriers are all large, a disadvantage in an early 1:1 tradeoff.

Finally, if the Raid Force intimidates the US carriers sufficiently, it can loiter around Hawaii and launch additional strikes under rule 18.36, fully amortizing Battleship Row. The US can contest this, but 22 IJN airstrike factors and 16 IJN surface units will find it easier to sink American ships in the open ocean.

CRITICAL ISSUE #2: The First Turn Overall

The Raid Force, which ties up most of the IJN, deals with one point on the map, Pearl Harbor. What of the rest of the first-turn board?

Allied deployment and movement is limited, of course. Major Allied forces appear in the Central Pacific and Indonesia, and these forces can also face IJN pre-emptive attacks.

Indonesia, or the East Indies, as it was known then, is the scene of one such surprise attack. Four IJN land-based air units (LBA) are available here. Since LBA will be unopposed in the South Pacific and Marshall Islands areas, one LBA can hold each down; Allied cruisers can only offer futile resistance. Four Japanese LBA are left to deal with Indonesia.

Only one economical strategy exists for Indonesia: Leave the four IJN LBA to eliminate the Allies and establish control. Remember that: a) IJN air superiority in the area will just about guarantee control, contested only by the US 5th Air Force; b) the IJN LBA can eliminate the two British vessels before normal combat begins under rule 18.5; and c) why give the British a chance to take some IJN surface units down with them? Besides, five more Allied cruisers could intervene, a purely surface threat countered by the purely aerial LBA.

Then, there is the Central Pacific to consider. Much controversy has been inspired in this area due to IJN carrier placement (see the original Series Replay in Vol. 14, No. 6) and radical strategies (an article in Vol. 15, No. 2 suggested

putting 17 IJN airstrike factors—the four biggest carriers and *Hosho*—in the Central Pacific). How do we build an IJN task force in the Central Pacific between two extremes?

First, the surface units are considered, since the Series Replay commentary suggested no carrier force in the area. Battleships should not be present if US carriers can get the upper hand in daylight. The SR commentary's assumed losses of one IJN cruiser per turn (assuming only one US carrier) are valid only if Japanese battleships aren't getting shot at first.

So, surface IJN units in the Central Pacific can be battleship-heavy ONLY if enough light carriers are around to fight by day. The IJN carriers, trying to sink their American counterparts, will be sunk quickly, but the US player will have to gamble against nightfall.

A night action in the Central Pacific will be unpleasant for the "location uncertain" US task forces. Each task force has two to three cruisers (none for the Saratoga's Group Y). Two US task forces, given a reasonable IJN six unit surface fleet, will find the escort cruisers ill matched against Japanese cruisers, even if battleships are absent. An appearance by only one US task force (1:6 probability for each group) is more likely. Carriers can be attacked if the escort is outnumbered numerically. The choice of which ships engage the escort is the attacker's, which could leave the Lexington, say, facing the Mutsu.

Critical Issue #1 mandated six carriers for the Raid Force. This leaves Ryujo, Zuiho, and Hosho available. Hosho is too slow for the Raid Force, leaving the other two light carriers to pose a pivotal question: Who do they reinforce? Do they go with the Raid Force, adding to its clout? A valid choice, as it allows greater damage to a helpless target. Or, the Ryujo and Zuiho can join Hosho in setting an ambush for US carriers.

Why such a strong IJN stance in the Central Pacific? Granted, there is a 49% chance of a US no-show. Conversely, there is a 51% chance of US forces appearing, with nothing in the rules allowing them to flee before combat, unlike the Pearl Harbor raid. Putting Hosho, Ryujo, and Zuiho into the Central Pacific means a 51% chance to shoot at, and possibly eliminate, American carriers. A pre-emptive sinking of one or two US carriers may be worth more than all of Battleship Row.

One final reason for a strong Central Pacific strategy for the IJN: Position. Japanese control of the area means that direct US raids from Pearl to Japan are blocked, and the same IJN control can mean the fall of Midway on Turn Two. An IJN fleet in the area can also cover an amphibious landing on the first or second turns, in addition to other duties.

Failure to get and maintain IJN control over the Central Pacific, to underline its importance, will mean that the area becomes a gaping hole in IJN defenses, requiring diversion of forces from offensives into Allied rear areas. The IJN will find itself defending its own POC without reaching out for more. A US controlled Central Pacific exposes the guts of the entire Japanese Empire. Prevention of this will require strong IJN effort, and eventual seizure of Midway to deny it to the USAAF.

CRITICAL ISSUE #3: The Home Islands, Turn One

Japanese (and Allied) first turn strategy should include the Japanese and Marianas Islands areas. These can't be left to the LBA. Critical Issue #2 demonstrated the need for LBA in Indonesia. Further, the South Pacific and Marshall Islands can only be reached by air on Turn One.

So, the Home Islands are left to the IJN surface fleet, which must be balanced against the

needs of the Central Pacific and Raid forces. Three Allied cruisers (*Houston, Exeter* and *De Ruyter*) can challenge weak patrols, and endanger the Yokosuka marine unit if present.

Home Islands deployment is a process of elimination. The IJN has two light cruisers, 18 cruisers, four battlecruisers, and six battleships. The Raid Force will require ten cruisers and the battlecruisers, as discussed in Critical Issue #1. The Central Pacific force will need enough surface units to face two US task forces—another six surface units at least. One light cruiser must be detailed to the Aleutians.

The remainder should be balanced against the Central Pacific, which takes most of the slow (non-Raid Force) units. The Home Islands force must be able to match the three combined Allied cruisers in either area. Remember that a lucky disabling of one or two IJN ships and the IJN has lost a lot of POC unnecessarily.

Finally, a look at the Aleutians. Posting a light cruiser there won't gain any POC, but it can achieve uncontested control on Turn One. A second turn there unmolested will mean the fall of Attu. The Allies will have more desperate business elsewhere on Turn Two; any Aleutian diversions could only help the IJN. Control of the area will hinder Allied re-entry; at least, IJN control will deny Allied POC and cover Japan's back door. Certainly, one light cruiser (which will have to base in Yokosuka) is about what the area rates—no more, no less.

As for the rest of the board: The Marshalls and South Pacific are the only areas where LBA can extend beyond surface range. Allied cruisers can enter these areas, but a cruiser vs. LBA is no contest. The board-edge areas (ignoring the Aleutians) are unreachable on Turn One from the IJN standpoint. This emphasizes the importance of the surprise missions at Pearl, Midway, and in Indonesia; attrition, not POC, is the predominant factor affecting the coming turns.

CRITICAL ISSUE #4: Some Openings

With the lessons of Critical Issues #1-3 established, three openings can now be posed. These examples of first turn deployment can be found on Chart 1.

The Midway First plan shows how IJN forces can meet enemy forces in the Central Pacific (a 51% chance of US forces appearing). The IJN Midway Force, with seven surface units, can take on one, even two, US task forces, and still threaten US carriers in a night action.

The three CVLs of the Midway Force—Hosho, Ryujo, and Zuiho—are more than a match for one US carrier at five airstrike factors to four, and could hold out against two US carriers long enough to damage or sink one. Certainly, the IJN could prolong the battle long enough for a night action to come up; the law of averages will catch up sooner or later. Even if a night action doesn't occur, a loss of three IJN CVLs for two US carriers, or arguably even one, is worthwhile.

The Midway First plan demonstrates the risks of weakening the Raid Force. The Raid Force has less chance of totalling Pearl Harbor, with the Ryujo and Zuiho absent. Conservative tactics would dictate that the second surprise strike go for undamaged battleships, in order to cripple as many as possible.

The aim of the Raid Force, and the entire Midway First plan, is obviously to hit US carrier forces. So, this means spreading hits among the battleships to stop them from linking up with the carriers. There'll be time later to finish them off. If the Raid Force can stay off Hawaii, then it can destroy any US task forces offering battle, or finish Battleship Row if not. Remember, though, that the weakened Raid Force has 22 airstrike

factors—the exact strength of all five US carriers and the 7th AF; if the IJN is unfortunate enough to face all that, a withdrawal is in order, as the odds are against a night action.

A word on secondary targets at Pearl: The cruisers (New Orleans and San Francisco) and the 7th AF take lower priorities to the battleships. The cruisers, true, are of greater long term value as carrier escorts; the short-term question is if the IJN wants to face them or the Maryland class in a night action. As for the 7th AF, reread rules 12.22 and 12.23; why take 16% chances on replaceable targets, when the chances of damaging or sinking ships permanently are one in three at Pearl?

A final feature of the Midway First plan is rear area placement. Three IJN cruisers in each of the Home Islands areas is hardly excessive, as their only advantage over the *DeRuyter*, *Exeter*, and *Houston* is the enhancement of IJN gunnery factors. The IJN cruisers' speed is handy only in the pursuit, if they win.

Since the 16 IJN cruisers are thus committed, the Midway surface force is mainly composed of battleships. The implications for a night action are obvious. Day actions are more likely, but why take such a gamble with American carriers so early?

The second plan to consider is the Strong Raid plan. Every carrier capable of going to Hawaii, does. This leaves only *Hosho* to dispute the Central Pacific—if the *Hosho* sinks an American carrier, fine. Otherwise, the Midway Force will have to be capable of a quick withdrawal, which is why it is so constituted.

Incidently, any Midway Force should have as many patrolling units as possible; raiders should be only those units which failed their speed rolls. There is a 49% chance of *no* US presence, and IJN control of the area is critical.

The risks in the Central Pacific mean that the IJN battle line is consigned to the Home Islands. This in turn frees more cruisers to fatten up the Raid Force, which IJN battleships are unable to do. The Raid Force itself, of course, is so powerful that it should aggressively seek any action with US units off Hawaii. Certainly, the strike on Pearl will be the largest possible.

The Strong Raid plan shows how a beefed-up Raid Force can distort IJN dispositions elsewhere, mainly because of the switch of *Zuiho* and *Ryujo*. Unfortunately, the Raid Force is so formidible that the US player will probably use the "escape clause" in rule 18.35 and leave Hawaii. Result: Redundant IJN forces in Hawaii and a weak one off Midway with probable loss of the latter area.

The third plan is a compromise in more than one sense of the word. Three airstrike factors go to the Central Pacific (Hosho and either of the remaining light carriers will do) accompanied by cruisers, as a day action could be too risky for IJN battle units. The Midway Force should be able to take out a US task force, or maybe two, but the risks are manifest. The first IJN airstrike could be the last.

Another problem with the Compromise plan is the addition of one light carrier to the Raid Force, oddly enough. This two factor reinforcement might not contribute anything tangible to the Pearl Harbor strike. This epitomizes the problems with the Compromise plan, which itself is presented for the sake of argument. This argument could well be resolved in favor of a more decisive strategy.

Common to all three plans is the LBA and Aleutians deployment discussed in Critical Issue #3. The presence of LBA in Indonesia means that, in any first turn strategy, the IJN must look to the Central Pacific for a third line of attack.

CRITICAL ISSUE #5: Another View

Besides the three plans discussed in Critical Issue #4, a fourth plan is worth considering. This plan, "Air Power in the Pacific," appeared in Vol.

15, No. 2 and although controversial, represented an innovative attempt to find new and unexplored lines of strategy.

The "Air Power" plan was as follows: Soryu, Hiryu, Ryujo, and Zuiho would be alone in the Raid Force (since no followup strike would be possible in the face of US carrier opposition, no surface escort was assigned). The remaining carriers were to go to the Central Pacific along with a surface contingent of at least six cruisers and the six slow battleships.

The Pearl Harbor raid was to focus on the two cruisers and the 7th AF, and leave the US carriers to the I-boat. This left the remainder of the fleet unmentioned: four battleships, 14 assorted cruisers, and six LBA units; presumably these would deal with the remaining five Allied cruisers and the Indonesia forces.

The rationale? The US battleships in Pearl aren't much good without LBA and carrier air factors to back them up, so concentrating on the 7th AF and the carriers is supposedly preferable. However, despite a 51% chance at the US forces in the Central Pacific, there is a much greater chance to hit most of it in Hawaiian waters (if it stays) and a 100% chance to sink battleships that, although of little use on their own, could be critical in a general fleet action.

The plan's advocacy of priority strikes on 7th AF, San Francisco, and New Orleans, means that the US, at worst, loses two cruisers and an air unit (the latter only temporarily). Not a bad trade for eight battleships. Meanwhile, the IJN carriers go for fringe units.

The upshot of this plan is that redundant forces are used in the Central Pacific and elsewhere, while the advantage of the Pearl Harbor strike is tossed aside. Worst of all, and the reason that this plan is cited, is that this plan represents an abject surrender to Lady Luck. This is reminiscent of the winner-take-all 2-1 on Tobruk or the Quatre Bras heights, also sometimes advocated in this magazine. Such a policy could pay off spectacularly, but places reliance on chance rather than reasoning power.

And that is the object lesson of "Air Power in the Pacific," which transcends any one game. Luck is a two-edged sword—swing it often enough, and hard enough, and you're apt to cut your own head off.

CRITICAL ISSUE #6: Turn Two

The second turn sees Allied forces vastly outnumbered. The Allies do have some advantages, though, in this first turn of unencumbered movement. Thanks to the turn sequence, the Allied player need not lose any raiding ships unless tempted to stand up to superior enemy raid or patrol forces. Such temptations include a last ditch defense of Hawaii, Ceylon, or Samoa, at dangerous risk.

Still, if the Allied player wants to be able to choose between fighting or running, then Allied carriers and battleships had better be raiding. Allied raiders move last and, although not able to gain POC, can pounce on weak IJN forces and affect the general course of play. Attrition is of paramount importance, as Allied strength, or lack of it, will determine IJN gains, as much by intimidation as by force.

A deadly stratagem in early IJN moves is to make the American player feel compelled to stand up for a critical area (Hawaii or the US Mandate, among others), or worse, divide US forces. US players take warning: That is precisely what the enemy wants. A particularly nasty example is Alan Moon's "TKO" strategy (Vol. 17, No. 4), which envisioned US forces compelled to make a gallant, and futile, last stand at Hawaii or Samoa.

Plan	Raid Force	Central Pacific	Marianas Islands	Japanese Islands	Aleutian Islands
MIDWAY FIRST:	Shokaku, Zuikaku, Akagi, Kaga, Soryu, Hiryu Four 4-3-6 Eight 1-2-7 Four 1-1-7 I-boat	Ryujo, Zuiho, Hosho Two 5-5-4 Four 4-4-4 One 1-0-7 Yokosuka Force	Three 1-1-8	Three 1-1-8	One 1-0-7
STRONG RAID FORCE:	As above plus: Ryujo, Zuiho	Hosho Six 1-1-8 One 1-0-7 I-boat	One 5-5-4 Two 4-4-4	One 5-5-4 Two 4-4-4	One 1-0-7
	Shokaku, Zuikaku, Akagi, Kaga, Soryu, Hiryu, Ryujo Four 4-3-6	Zuiho, Hosho Six 1-1-8 One 1-0-7	One 5-5-4 Two 4-4-4	One 5-5-4 Two 4-4-4	One 1-0-7

NOTES

- 1. All three plans to have four air units in Indonesia; one each in South Pacific and Marshalls.
- 2. Ships not on Raid Force will patrol; those failing speed rolls will raid their assigned area, reinforcing the patrol.
- 3. Marine deployment optional unless specified.

Eight 1-2-7

Four 1-1-7

I-boat

Ed O'Connor's "Maniacal Approach" (Vol. 17, No. 6), rebutted "TKO"; no additional comments on tactics are necessary. Still, the main, diabolical theme of "TKO" and other IJN strategies remains: Compelling the Allies to defend that which cannot be defended. The only answer is to stay out of harm's way and not play on the enemy's terms.

If the IJN wants geography, they will have it during the early turns, like it or not. The Allied player should mass what little force is available, building around the five US carriers, and wait for an opportunity. Such an opportunity, involving a massed US raid on part of the IJN, will be worthwhile only if the US is strong enough to inflict heavier losses than it takes.

Above all else, remember that the turn sequence usually allows the Allied player to fight where he chooses, and not where it suits the enemy.

Three ports are critical on Turn Two. Truk, of course, is adjacent to three areas at once, and dead center on the board. Truk is a central position dominating scattered Allied enclaves all around the board-edge, compensating the IJN somewhat for its turn sequence disadvantage. Whether operating as scattered forces, or en masse, the IJN should base almost exclusively at Truk.

Australia can serve as an excellent US base, and as an alternative to a threatened Pearl Harbor. The main advantage: If the IJN can be pushed out of Indonesia, Australia can be the springboard for the US part of the effort. Loss of IJN control in Indonesia means that, besides a major loss of POC, the IJN siege of Singapore is broken. The relief of Singapore in turn can allow the Royal Navy a forward base.

Further, Australia can provide a better base for American battleships. Slow as they are, US battle units can raid Indonesia or the South Pacific from Australia. Rather than basing at Pearl, among less lucrative areas, Australia puts the US battle line squarely into the fight, able to contest large POC areas with the Tokyo Express.

Samoa may serve as an alternative US base, if the US has to withdraw from Pearl on Turn One. Ships based in Samoa can reach the Hawaiian Islands and the Coral Sea easily. Australia is still preferable for combined operations with the British—especially for defending Ceylon—but carrier task forces in Samoa can reach all the way from Ceylon to the North and Central Pacific. A

massed force of five carriers and 15 cruisers on raid status can be kept as a dangled threat to every IJN probe, forcing a narrowing of the enemy effort, and only control of the the US Mandate could enable the IJN to hamper this which, in turn, would only cause the US to base elsewhere.

Some Allied tactics for Turn Two, and afterward:

- 1. Avoid battle unless locally superior. A strong force can crush a small one with little loss, but an even fight will cost the US more than it can afford. A few CVs and their cruiser escort must last till Turn Five.
- 2. Raid into enemy territory where possible. Go where the main IJN fleet *isn't*, and cut into their POC. It will do the IJN little good to raid the US Mandate if US ships are visiting the South Pacific or the Marshalls. Be prepared to take on LBA, if you're so inclined, with lopsided air superiority on the order of 4:1 or better.
- 3. Put US LBA units in the danger spots: Coral Sea, the Mandate, Hawaii, wherever raiding IJN carriers are likely to go. For control of US rear areas, LBA units are preferable to surface patrols. LBA can be replaced, and can take out enemy carriers; surface ships usually can't do either.
- 4. Start levering the IJN out of forward areas, using the Marines. Crucial bases like Guadalcanal, Midway, Lae, and Dutch Harbor can prove important once US LBA units become available.

This Critical Issue is somewhat general. Any strategy cannot take the enemy for granted, and only general maxims can be used. The Allied player must live through the first four turns by flexibility and resourceful use of what few assets are at hand.

As for strategy late in the game, after the tide has turned: The course of play for the entire game will be determined by the first two or three turns.

CRITICAL ISSUE #7: The Pearl Harbor Gambit

SAN FRANCISCO (API)—The surrender of U.S. forces on the embattled island of Oahu was announced today by their commander, Maj. Gen. Robert L. Eichelberger, in a radio broadcast monitored here.

Gen. Eichelberger, who replaced Gen. Douglas MacArthur after the latter's escape in July, called upon US forces still holding out in the Hawaiian Islands to halt further resistance.

The surrender ceremony, transmitted from Adm. Yamamoto's headquarters in Honolulu, marks the end of an epic nine-month naval siege.

Lt. Gen. John L. DeWitt, head of the Western Defense Command, stated in a press conference here that troops previously bound for Europe are being diverted to defend the California coast . . .

Is this possible in VITP? Yes, but not feasible. A scenario: The Strong Raid plan, or an attack involving a strong Raid Force is implemented. The US carrier forces wisely decline battle and the eight US battleships are destroyed in four air attacks. Meanwhile, Midway falls to the Yokosuka Marines and the British lose two more battleships in Indonesia. Very plausible to this point.

Assuming the best possible US response on Turn Two, we concede that the US gets away with its five carriers and 18 Allied cruisers (ignoring the British) unscathed. Further, the 5th and 7th Air Force took second priority to surface units and also got away.

Now, a Turn Two offensive: The IJN leaves minimal patrols across the board, patrols Hawaii with its six fastest cruisers, and puts the rest of the fleet on raid status. The raiders all go to Hawaii, to cover the cruisers and threaten control of the area. See Chart 2 for details.

What can the Allies do? The strongest direct defense is shown on Chart 2. The US can, by daylight, oppose 27 IJN airstrike factors (assuming that the *Junyo* and *Shoho* fail their speed rolls) with 28 US airstrike factors.

The mutual disadvantages are threefold. The US will get its five carriers shot up, the IJN will be (probably) unable to dislodge the LBA, and the US risks a night action while the IJN can't count on it.

The first disadvantage is manifest. The US can ill afford a carrier exchange on Turn Two. Given average results, the US will trade off and find that, at five US carriers to 11 Japanese, the US will still be left with the smaller numbers.

The IJN in turn will find that the LBA is able to show great tenacity. The IJN's enhanced airstrike factors mean nothing against LBA units; "disabled" results even less. Even a first turn elimination of the 5th and 7th AF will still mean a nasty 27-24 factor battle, with US carriers' prime tactical threat diverting attention away from the LBA.

The third disadvantage is profound. The US is short in numbers: 18-16 in cruisers and 10-2 in battleships. A night action will mean that the IJN can pair its cruisers against the Allied surface fleet, and leave the battle line free to blast the US carriers, under the night action rules. By fighting in an uncontrolled sea area, the US is running a 40% risk of such a debacle with each combat round. And a retreat from this means that the LBA must leave as well, under rules 8.11 and 8.21.

The result is that the Pearl Harbor Gambit, whatever its flair, is no bargain for either side. The same is true of any attempt to establish IJN hegemony over Samoa or Australia. The IJN can, however, put its entire fleet, less rear area patrols, on raid status. This will allow raids into areas not defended, or weakly so, by Allied LBA and patrols. The massed IJN carriers have 27-31 airstrike factors, an ample match for the 20 US factors away from LBA cover.

Still, an IJN patrol (or mass raid) of Hawaii poses a dilemma—the US feels compelled to protect the base. A direct challenge to the IJN as discussed, with all its risks and even money die rolling, isn't necessary.

Indirect US responses can include raids into Japanese rear areas. Once the enemy raid forces are committed, the US can raid the Central Pacific (especially potent if the IJN is trying to besiege Midway as opposed to a Turn One invasion.

Another response could be to base all Turn One US forces in Australia, wait for the IJN attack on Pearl to go in (raiders and all), then raid Indonesia in conjunction with British carrier and cruiser forces. A two cruiser patrol of the Mandate

and Coral Sea will still allow a large US raid, and even permit four LBA to bedevil the IJN attack on Hawaii. The loss of IJN control of Indonesia will mean that: a) Lae and the Philippines need not fall; and b) Singapore is again available as a forward British base.

Such a use of ju-jitsu on the Japanese will have dramatic consequences. The British, once consigned to a ship-in-a-bottle role at Ceylon, are now a major presence in the game, able to reach Japan itself. Lae and the Philippines again pose hazards to the POC rich Marianas and South Pacific areas. And, the US can still contest the southern and western areas of the board, playing for more POC than from Pearl. Even the loss of Pearl would not offset this.

True, this countermove has risks. Three to five US carriers, and two British carriers, could remove two Japanese LBA, but at some risk of damage to the US carriers. The Allied LBA could not be deployed out of Singapore (or Lae) into Indonesia, as this would alert the IJN raid units. Still, the specter of British and American battleships in Singapore is an excellent counterweight to the Japanese occupation of Hawaii.

SINGAPORE (Reuters)—The fall of Gen. Tojo's government was today confirmed by Radio Tokyo, not one week after the fall of Hawaii.

The announcement, coming two days after the spectacular Allied carrier raid on the enemy capital, signaled a major change in enemy war policy. The Tojo cabinet, pledged to conquer Hawaii despite the relief of Singapore and Midway last spring, was toppled as a result of the Allied counterattack.

Prince Konoye, the new prime minister, named defense of the "Imperial homeland" as the first priority of his government. He denied rumors that the fleet is being redeployed because of fuel shortage, and stated that Japan could do without the Dutch East Indies. He also asserted that damage to Tokyo Bay naval yards was "slight."

Prime Minister Churchill, in today's speech to Commons, commented, "This is no longer the end of the beginning—it is the beginning of the end."

CRITICAL ISSUE #8: The Yokosuka Force

Turn One: The Yokosuka Marines put out from Japan. With this one unit goes much of the IJN prospects for victory or defeat; the Yokosuka unit can define crucial positions on the board. Its possible missions:

- 1. Take Midway: This means that Allied LBA units will be unable to control the Central Pacific on Turn Two. A first turn siezure of Midway will ensure that IJN air units will use it instead, and their presence will help protect Japan and the Marianas from US raids, by closing the Central Pacific as an avenue of approach.
- 2. Take the Philippines: True, this base could fall at the end of Turn Two, through simple control of the surrounding areas. However, it is also true that the Allied player can use the Philippines to introduce LBA units into the Marianas. Such a tactic, whatever the consequences elsewhere, will tie up IJN LBA or carrier units. At worst, IJN surface patrols could be driven out, losing POC and leaving the Philippines in US hands. A quick IJN landing on Turn One, from either direction, will put a stop to that.
- 3. Take Dutch Harbor: This will negate Allied air control over the North Pacific, and allow the IJN to cop some POC later if a LBA unit can be spared. Dutch Harbor also helps to secure the northern end of the Japanese defense perimeter.
- 4. Proceed to Truk: From there, the Yokosuka unit can make a second turn grab at such useful bases as Guadalcanal, New Hebrides, Port Moresby, or Johnston Island. Lae, the Philippines, and Midway would have to fall by naval control, or the appearance of the Sasebo unit, especially at Midway.
 - 5. Proceed to Saigon: This will allow a Turn

Two threat to the Andaman Islands, Port Moresby, and Guadalcanal, any of which would extend IJN air control into lucrative areas. Saigon is not as convenient to the eastern side of the board, however.

6. Discarded Alternatives: First turn invasion of Attu or Lae would not be profitable, at least, not in preference to the first five alternatives. Both Lae and Attu are apt to fall by other means.

The Sasebo and Kure units, as they appear in Japan, should work on the same missions as the Yokosuka unit. Completion of these missions would have obvious strategic importance.

A final note: Returning LBA units can be reintroduced in any major port. Placement of revived amphibious units in Truk, a favored tactic, is advised for obvious reasons.

CRITICAL ISSUE #9: Amphibious Units

Neither the rules nor the official AH Question Box rulings on VITP (see Vol. 14, No. 4 and Vol. 17, No. 4) fully address the issue of marine units in combat to my satisfaction. The following official rulings can be used, if desired:

- Q. Can a marine unit go to any friendly major (red) port at turn's end?
- A. Yes. See rule 13.32 and section 10 of the rules. Invasion is not required, as long as the port or base being entered is friendly.
- Q. Can Marine (amphibious) units be raided in a port or base?
- A. Yes, and thanks to rule 9.4, they do not take double damage. Damage beyond their armor factor sinks them wherever they are. NOTE: Rule 22.3 (optional rules) damage should be used for this kind of raiding, if this ruling is used. This means that carriers can actively support a landing under rule 9.3.
- Q. Can subs attack amphibious units at the end of a round, before the landing?
- A. Yes. That would be the sub's one attack that turn, under rule 7.91.
 - Q. Can amphibious units control a sea area?
 - A. No.

CHART 2. THE PEARL HARBOR GAMBIT A Turn Two Attack and Defense

Area	IJN	US/Allied		
Hawaiian Is.		(5 US cariers) s)(15 US cruisers)		
		(I Allied cruiser)		
		(Idaho, New Mexico,		
	(I-boat)	5th, 7th, 10th, 11th AF		
US Manadte	-	1 Allied cruiser		
Coral Sea	-	1 Allied cruiser		
Indian Ocean	-	_		
Bay of Bengal		Royal Navy (see Indonesia		
Indonesia	2 LBA units	why bother?		
South Pacific	1 LBA unit			
Marshalls	1 LBA unit			
Central Pacific	1 LBA unit			
Marians Islands	1 LBA unit	_		
	Sasebo unit (to Truk)			
Japanese Is.	Kitakami	-		
Aleutians	Oi	-		
North Pacific	-1000			

NOTES

US/Dutch/Australian forces based in Samoa and Pearl. Royal Navy based in Ceylon. All IJN based in Truk except Oi. Kitakami, Junyo. Soho from Yokosuka; the latter two will attempt to raid Hawaiian Islands with fleet. First-turn use of Strong Raid plan and IJN landing on Midway assumed; destruction of all first-turn battleships (except Revenge) assumed.

CRITICAL ISSUE #9A: A Point of Order

The first turn attack on Pearl Harbor is of obvious importance. Beyond the threat to Battleship Row, the IJN can try for a pre-emptive strike on the US carrier task forces. These task forces, under the sequence described in rule 18, appear after the first two air strikes on Pearl.

Now comes a critical issue, so to speak: What of a direct clash between Japanese and American carriers off Hawaii (Halsey vs. Nagumo)? Rule 18.36 makes direct mention of renewed attacks on Pearl Harbor. The rules do discuss retreats and pursuits, in rules 18.35 and 18.36; the picture of the *Nevada* limping out of the harbor is not the sort of "pursuit" inferred.

So, two more formal rulings are offered:

Q. Can the IJN Raid Force engage US units at sea in the Hawaiian Islands?

A. Yes. If the US does not withdraw them under rule 18.35, the IJN may attack the *Indianapolis, Minneapolis,* surviving Pearl Harbor units at sea, and Groups W, X, Y, and/or Z. The IJN is limited to two combat rounds (which can be day or night under rules 7.3—7.34) and must retreat after the second round. Attacks "at sea" are performed instead of against Pearl; the IJN may not attack units in port (except 7th AF) as long as US ships are at sea in the Hawaiian Islands area. Further, the IJN may not pursue retreating units under rule 18.36, due to the same "fuel restrictions."

Q. Optional Rule 25 (Vol. 14, No. 4) limited the IJN Raid Force to 10 ships, and required the IJN to select their third round targets before the US rolled for his "location uncertain" groups. May this be used in conjunction with the above ruling?

A. Absolutely not! Use Optional Rule 25 or these two rulings, but not both.

CRITICAL ISSUE #10: More Questions and Answers

Certain official AH rulings (Vol. 14, No. 4 and Vol. 17, No. 4) bear repeating:

Q. What happens when a marine unit lands on a base that is surrounded by enemy controlled sea areas at the end of the turn and was surrounded by enemy sea areas on the previous turn?

A. When the marine unit lands, it captures the island; thus eliminating it as a base for enemy land based air; however, (if) at the *end of the turn* the enemy has had it surrounded for two turns, the enemy *immediately* captures it back.

This means that slipping a marine unit into Midway, unescorted, may work if it is only opposed by LBA. Taking the island in such an instance would remove the sole air base for the area and end enemy control. But, if by a fluke you've achieved nothing, and this ruling closed a loophole big enough for the New Jersey to steam through. So: Either you defeat the defending fleet, or your new forward outpost gets the Krakatoa treatment.

Q. What happens when a "disabled" is rolled against a target during the initial surprise attacks?

A. Nothing. The surprise attacks are "air raids" (even in Indonesia), and during air raids "disabled" results are ignored. Notice that any ships that survive the surprise attack in Indonesia must go through one round of normal combat before they can get away.

And that, fellow midshipmen, is why four Japanese LBA units will suffice to finish what the *Bismarck* started.

Q. Is it legal to choose a "day action" even when you have no air strikes in the sea area, just to avoid enemy gunnery attacks?

A. Yes—you may always choose day or night actions, regardless of what forces you have in the area.

A good reason why a lone marine unit, by landing at night can defeat air units in such an area, say, as the North Pacific.

Q. Suppose I have carriers in a sea area, but I cannot make any air raids because there are no enemy ships in the ports in that area. Then, enemy ships return to a port in that sea area. Can I make an air raid attack against them?

A. Not if the fighting in that sea area has already been resolved. The Japanese player chooses the order in which battles are fought; if he chooses to resolve the fighting in an area (even if he has no ships or units there), then the units in that sea area must make any air raids there as soon as the fighting (if any) is over, or those units lose the chance to make air raids for the rest of that turn.

The US may have a patent advantage, thanks to broken codes and the sixth inning surge; still, the IJN can save itself much grief by exploiting this ruling, especially if American task forces are loitering in one of the three areas bordering Truk.

Q. In rule 7.73, isn't a ship's *gunnery* factor reduced to 1 when it takes damage equal to its armor factor?

A. Yes! NOT its armor factor; this was a typo.
 Q. Can the Japanese ships making the Pearl Harbor

surprise attack control the Hawaiian Islands on turn 1?

A. NO. They are "raiding" ships, since they must retreat before the end of the turn.

Q. On turn 1, when the Allied survivors move into the Hawaiian Islands, and the Allied LOCATION UNCERTAIN groups are rolled for, can these ships then move into other sea areas that same turn?

A. NO! They must remain where they are, or retreat at the appropriate time.

Q. Do these ships—the survivors and the LOCATION UNCERTAIN groups—count for control? Are they "patrollers" on turn 1?

A. Yes. They are "patrollers" and control the Hawaiian Islands and/or the Central Pacific if they remain at sea at the end of the turn.

Which tends to put the first turn into patterns started by the Surprise Attack rules, patterns the IJN can exploit. These rulings illustrate, among other things, why the IJN should come to Pearl in force and hang around after the initial raid, and why the IJN can blitz the carrier groups as well, particularly off Midway.

Q. When an airstrike attacks, do all the factors (of a ship) attack the same target (like gunnery factors), or does each factor attack a separate target (as in WAR AT SEA)?

A. All of the factors attack the same target, like a gunnery attack.

This ruling is a considerable help on Turn One, where a large number of IJN cruisers (say, off Midway) can take on a US carrier task force and make the US player think twice about a night action. Each US carrier could only sink one cruiser at a time.

Q. Suppose both Japanese and Allies have a marine unit in an area, and there is only one Allied base there; does the Japanese unit land first, thus disabling Allied air units in that area, or do the Allies keep the base?

A. The Japanese capture the base *first*, and all Allied air must leave—then the Allies can recapture the base—but the air units are still gone.

Another illustration discouraging reliance on LBA units, at least to control areas. This can be allowed for. Caveat aviator—let the flier beware.

Q. Rule 7.72 states: "A ships's gunnery factor loses the attack bonus if the ship has any damage." Does a damaged CV lose its airstrike attack bonus?

A. No.

A sharp tactical ruling. This is an important consideration when choosing targets among carriers, LBA, and surface units. A carrier with an enhanced airstrike factor will be deadly until it takes its last hit.

Q. Rule 13.1 says amphibious units "move like ships except they can always move two sea areas and they never make speed rolls." Do amphibious units have to stop on entering an enemy controlled sea area?

A. Yes. The intent of 13.1 is to exempt amphibious units from speed rolls.

This ruling has long term, strategic import. IJN control of the Hawaiian Islands area on Turn Two will mean that the third turn US reinforcements (the 1st and 2nd Marines among them) will be unable to move out of the area. The IJN may not be able to take Pearl Harbor, but they can very well destroy these two Marine units if they're hobbled by control markers. An island hop through Midway of the Marshalls to Saipan over two turns, which would put US LBA in the IJN rear, would be stopped. For that matter, any US offensive would be delayed with the 1st and 2nd Marines out of action.

CRITICAL ISSUE #11: The Hickam-Clark Gambit

1-0-7

Within 24 hours of the crippling of the Pacific

One 1-0-7**

One 1-1-7

CHART 3. THE WESTERN STRATEGY Bay of South Central Indonesia Pacific Marianas Pacific Marshalls Bengal Is. Aleutians Turn Two Six 1-1-8* 2 LBA 1 LBA One 1-1-7 2 LBA One 1 LBA One 1-0-7**

Two 5-5-4* Sasebo** 1-0-7 (Shokaku) (invade (Zuikaku) Lae) (Sorvu. Hirvu) (Akagi,) Kaga)* (Ryujo, Zuiho)* (Hosho)* (Shoho, Junyo)** I-boat: as desired (Four 4-3-6) (Four 4-4-4)* (Eight 1-2-7) (Three 1-1-7) One 1-1-7 2 LBA*** One 1 LBA***

Turn Three Same as 1 LBA*** 1 LBA
Turn Two, or
less losses, One 1-1-7

NOTES:

*Based in Saigon;

**based in Yokosuka; all other based in Truk.

***If one LBA is lost on Turn Two, Marianas unit should go to Central Pacific.

If Central Pacific is uncontrolled on third turn, assign LBA as follows: 2 LBA to Japanese Is., 2 LBA to Marianas, 1 LBA each to South Pacific and Central Pacific.

Fourth-turn strategy, given this plan, should be to reestablish defensive line (area control) of Aleutians, Marshalls, Central and South Pacific, and Indian Ocean.

Fleet, Japanese aircraft had also raided Clark Field in the Philippines, and Hickam Field on Oahu, knocking the Army Air Corps out of the box even before the first inning. Can this be duplicated in the game? For practical purposes, no.

The rules are explicit, if you look at 12.22 and 12.23. Carrier factors (circled ones, at that) could be better spent at full value against surface ships. Any attacks on the 7th AF would have only a 16% chance of damaging it, with no combat bonus.

The same is true of the 5th AF in Indonesia. If the British already have gone to Davy Jones, and there's nothing better to do, go for Clark Field. Otherwise, be assured that 5th AF isn't about to tarry past the first combat round, if the British can't.

True, 7th AF at Pearl could cause some loss to the Raid Force. However, if the surviving battleships and task forces retreat from the Hawaiian Islands, 7th AF will have to do likewise under rules 8.11 and 8.21. By themselves, they could not stop the massacre of the US carriers off Hawaii (worth the reciprocal risk to IJN carriers), nor could the 7th AF avoid being shot down in turn by 22+ carrier factors, P-36s and B-18s would not have fared well against Nagumo's massed Zeroes.

In the long term, these same rules will help the USAAF control front line areas. LBA units can be replaced, whereas sunken carriers are gone for good; the latter are also easier to sink.

On Turn One, it's simply not worthwhile for the IJN to attack the 5th and 7th AF, when more lucrative targets are parading like ducks in a shooting gallery. I consider this one of the few faults in an otherwise excellent design.

CRITICAL ISSUE #12: The Asiatic Fleet

Turn One. Peacetime patrol requirements tie Allied forces to rigid patterns in the Pacific, particularly the US carrier task forces. Five cruisers, however, may react to Japanese movements and take on the Imperial fleet: HMS Exeter, HMNS De Ruyter, HMAS Australia, HMAS Canberra, USS Houston.

So what?

Maybe nothing. Five 1-1-7s aren't terribly impressive. And, they can't wrest area control from LBA—not by themselves. But the *Houston*, *Exeter*, and *De Ruyter* can raid into the Marianas or Japanese Islands *after* IJN raid forces have already deployed. The Allies still have the turn sequence advantage, after all.

All five Allied cruisers can join the British in Indonesia and challenge IJN naval units. An IJN force with few escorts could find carrier or marine units unexpectedly menaced.

Of course, the presence of enemy air units could render such a move unlikely. If nothing else, the five cruisers can spend the turn in the Indian Ocean (out of danger) and scatter to major ports from there. They could also patrol the South Pacific in the off chance the IJN forgets to post a LBA unit there. Or. . .

These five cruisers are the only freedom of action available to the Allies on Turn One. This need not be meaningless.

CRITICAL ISSUE #13: Lae

Let's take it for granted that Japan now holds the outer perimeter: the arc formed by the Aleutians, Central Pacific, Marshalls, South Pacific, and Indonesian areas. Further, the IJN has raided outside of that, and is nearing the 29 POC maximum.

In short, it's Turn Three; the Allied player realizes that Turn Four will (probably) mean a strong Allied air force will be available to patrol rear areas and contest forward ones. Turn Five will mark the last turn before the *Essex* class arrives; attrition strategies will become feasible. Turn Three, then, means that the US can plan ahead and stop cringing.

Turn Three also means that the 1st and 2nd Marines arrive. Assuming that they can get out of the Hawaiian Islands (no IJN control there), now what? Dutch Harbor, Attu, Midway, and the Marshalls are not appetizing prospects—especially the latter, as Truk will still furnish LBA regardless of who holds Maloelap or Kwaialein.

Which brings us to the areas south of Truk. Three bases offer tremendous potential. New Hebrides can serve as an excellent halfway point for US cruiser/carrier task forces based there; in IJN hands, New Hebrides will permit great mischief.

Close by is Guadalcanal. Allied possession of this base means that the USAAF can be infiltrated into the South Pacific. From Guadalcanal, the Allies can contest the South Pacific, and cover the next step: invasion of Lae.

The IJN forces are absent from, or driven from, the South Pacific on Turn Four, the 1st or 2nd Marines (moved to Australia, Samoa, or New Hebrides on the previous turn) can invade Lae. Lae won't afford removal of IJN air or naval units from the South Pacific, for Truk adjoins this area, as well. Still, Lae offers two great advantages:

- 1. Allied air units can be introduced into Indonesia, to take more POC from the enemy beyond those lost in the South Pacific.
- US naval units, basing in Lae after action in the South Pacific, are at Indonesia's door, and two areas from Japan as well. Even the slowest remnants of the Pearl Harbor forces can reach Indonesia or even Japan from Lae, depending on control markers.

Maybe this won't guarantee Allied raids into Indonesia or the Japanese Islands on Turn Five, but seizure of Lae is a start, a head start on the inevitable. Putting the slow US battleships this far forward, where they can link up with the Royal Navy, presents the IJN with a major threat in its back yard, where all the points are. And, US carrier/cruiser forces can reach out from there (or Samoa) in the other direction, towards Hawaii and other points around the IJN outer perimeter.

In short, Allied air and Marine units can lever the IJN out of the southern part of the board, and Lae—after Guadalcanal—is the fulcrum.

CRITICAL ISSUE #14: Sic Transit Britannia

"This...is London

"The city is quiet tonight as Lord Beaverbrook, Britain's third Prime Minister in 38 months of war, takes office. News from the Near East and Far East continues to trickle in, all of it grim.

"Rommel's forces entered Cairo yesterday, crossing the Nile virtually unopposed. Since the 8th Army's supply line was cut in the Indian Ocean, and its resulting defeat at El Alamein, British resistance in Egypt has collapsed.

"Nothing has been heard from the Persian Gulf Command in ten days. The last reports from Teheran told of an uprising of fighing across Iran, then silence. This Lend Lease lifeline to Russia, already cut by the Japanese, is no more.

"The revolution in India, sparked by the surrender of Ceylon last month, has now spread to all corners of that subcontinent. No government has emerged from the chaos, but one fact has been confirmed:

"The Union of South Africa again denied that it is seeking a separate peace with the Axis. In today's speech in Capetown, General Smuts repeated his appeal for American troops, noting that his country stands alone against Japan.

"Reports of American victories in the western Pacific, and the unexpected arrival of General Eisenhower's forces, have not cheered the British people in these last weeks. It appears that, although there may always be an England, the British Empire is now history."

After the first turn is over, the IJN is faced with four general strategies:

 Head East: Take Pearl Harbor (as discussed in Critical Issue #7).

II. Head South: Take Australia. This means getting control of both the Coral Sea and the Indian Ocean on the second and third turns. Weak Allied air forces would be sorely tested.

The key to this strategy is control of the Coral Sea on Turn Two. This will keep the US from the Indian Ocean, unless American forces redeploy to Australia

Such an IJN strategy would be signalled by patrols in the Indian Ocean and the Coral Sea. The IJN would be split for two turns, and Allied raiders could strike at either IJN patrol. Further, the IJN will need reinforcement by LBA, requiring a second turn landing by Yokosuka (from Truk) at Guadalcanal or Port Moresby.

Sure, the fall of Australia would net the IJN a large share of POC, and louse up the Allied position besides. But taking Australia is a long shot, and the IJN would be gambling virtually all of its initiative and material in this one theater.

III. Head Southeast: Take Samoa. Minimal prospects with maximum risks, for the same reasons as the Pearl Harbor or Australia strategies.

IV. Stonewall It: Another strategy is to nail down the outer defensive perimeter, controlling the Aleutians, the Central Pacific, the Marshalls, the South Pacific, and Indonesia on Turn Two and use them as a barrier to Allied probes. The IJN, while strong, can continue to raid outside this perimeter.

The IJN, inside this perimeter, will already have extensive POC. With most forces on raid status, the IJN can judge Allied patrol and air dispositions and remove control of Allied boardedge areas (cutting Allied POC). Toned down versions of the above strategies, i.e., raids and air attacks on Pearl or other high POC areas, should try to compel the US to take risks to defend the Mandate, the Coral Sea, or Hawaii. The result would often be a decimation of the US fleet when at its weakest, or, if no battle is offered, the IJN will quickly reach its 29 POC maximum.

V. Head West: Aim: Destruction of the British fleet with overwhelming air and surface forces, and capture of Ceylon.

Chart 3 shows one way of attaining this. The distances involved will require basing slower units, and designated patrols, in Saigon. Should Ceylon fall, the IJN can leave minimal patrols for the Bay of Bengal, the Indian Ocean, and Indonesia; a threat to their rear will have been removed.

This strategy should not be attempted if, on Turn One:

- Either Indonesia or the Central Pacific are not under IJN control by turn's end. Both are critical to the operation.
- 2. Four or more US battleships are still afloat and mobile.
- 3. Four or more US carriers appear on board on Turn One. These and the battleships could intervene from Australia.

The tactical refinements can be worked out by the players (who, I'm sure, are already getting some ideas). The pros and cons are worth contemplating, however.

PRO: The Royal Navy is wiped out. The IJN has a tremendous air advantage over the RN; one day round would wipe out or disable the I-class carriers, with enough Zeroes left for LBA. A night action, with the IJN preponderance in numbers, would see heavy gunnery damage to the RN surface AND carrier units.

CON: US intervention from Australia, if strong enough, would combine American carriers with British battleships and turn the strategy into a bloody shambles. A strong Pearl Harbor strike, and the "location uncertain" forces off board on Turn One for the most part (appearing only at Pearl on Turn Two), are both preconditions for even attempting this plan.

PRO: The British have no place to go. Disabled vessels go straight to Ceylon, and catch end-of-turn raids. Singapore will surrender at the end of Turn Two (if the IJN has controlled Indonesia, a basic precaution), closing the only other RN port.

CON: Everything (literally) depends on first (and second) turn control of Indonesia. Otherwise, the Allies can redeploy to Singapore and turn the plan inside out.

PRO: The RN gets only two ships on Turn Three. A strong second turn attack will have cleared the way for IJN tactical supremacy on Turn Three. Further RN reinforcements will not appear at Ceylon.

CON: Allied LBA can easily appear on Turn Three. A determined IJN player can still take Ceylon, but will tie up virtually all of Japan's carriers to ensure this, and lose some of them in the process.

PRO: Permanent removal of the RN, except for the Victorious, and capture of Ceylon and the Andaman Islands, will secure the IJN rear. Control of Indonesia and the Bay of Bengal will be easier with the US far off; even control of the Indian Ocean will be feasible. POC for the three areas, the latter two especially, will be a bonus.

CON: Indonesia was never really endangered by the RN, which cancels itself out on Turns Four and Five due to withdrawals. This strategy allows the RN to inflict the IJN losses and play an unaccustomed part in VITP, while the IJN would eliminate a force due to leave the board anyway.

PRO: Allied countermeasures are minimal. The IJN can trap the RN easily, as it has nowhere to go. American help, given the preconditions, would not be provided without risk to them, especially if IJN air units patrol Indonesia in force. Although the Japanese must redeploy first, the US, faced with threats to Pearl and Samoa, might not redeploy to Australia, realizing too late the import of IJN dispositions in Saigon.

CON: The plan will betray itself by IJN deployment to Saigon, albeit of necessity. The capture of Ceylon will tie up virtually all IJN ships for Turns Two and Three, leaving the western defenses to LBA. US forces could still break control of the Central Pacific (or the Marshalls), putting the Marianas or Japan in jeopardy on Turn Three.

PRO: VITP tactics mean that more units have greater chances of hitting an enemy, while lesser forces have fewer shots. A lopsided IJN advantage over the RN, day or night, means smaller IJN losses, while much of the British fleet will be destroyed, never to fire again, in the very first round.

CON: The IJN will still suffer losses to British naval and air units, and then turn to face undamaged US carrier forces. The US will by then have nibbled away much of Japan's eastern territory and POC.

PRO: This strategy can be modified to a second turn raid of the Bay of Bengal, as Nagumo actually did in the spring of 1942. The RN would be eliminated with minimal diversion of IJN forces, especially on Turn Three, when the capture of Ceylon can be cancelled.

CON: IJN losses will be the same in eliminating the RN. Passing up Ceylon would mean less of a return on the investment. Further, such safeguards as strong LBA patrols of Indonesia, and second turn invasion of Lae (to keep out third turn Allied air if the South Pacific doesn't hold) will still be necessary.

The western strategy is the converse of the Take Pearl gambit. Such a course would be feasible if the US is unready, and would have particular value in the "Victory at Sea" variant.

Certainly, the IJN staff had made plans in this direction. The Nagumo raid on the Bay of Bengal, as fleeting as it was, knocked the RN back to East Africa, leaving two oceans under Japanese influence. Pursued to its logical conclusion, a Japanese war effort into the Indian Ocean could well have meant a linkup with the Germans, and an end to the British Empire. The peaceful postwar withdrawal of Britain left a power vacuum, but a naval struggle for control of the Indian Ocean may still occur one day.

CRITICAL ISSUE #15: Ship Classes, Japanese

This is the inevitable piece by piece discussion (as in Critical Issue #16), something of a recent trend in *THE GENERAL*. The names and specifics of these classes bear little relation to what you'll find in *Jane's Fighting Ships*, 1941. Rather, they are classed solely by their three printed factors, which, along with nationality, are all that matter in game terms. Carriers and light carriers are also classed by airstrike factor, a second dimension of offensive strength.

138

Zuikaku (CV). Two ships, both present at start. Easily the best carriers in the game, these carriers chief advantage is speed, an advantage in pursuit, retreat, and strategic

movement. The four airstrike factors (circled, indicating attack bonus enhancement) mark them as top rank carriers. Their best base is Truk; their speed means that they can reach any point on the map from there (on raid status). Their armor factors are better than most carriers, but should not be regarded as "safe," especially as US carriers are apt to strike them first.



Akagi (CV). One ship, present at start. Main strengths are airstrike and armor factor, the latter exceeding any carrier other than Shinano or Kaga. Movement factor is a slight

disadvantage, as it makes extended operations (two areas from base on patrol, three on raid) somewhat risky. Truk may not be suitable for this or slower carriers if operations to the extreme west or northeast are planned. The gunnery factor on this (or any other IJN carrier) is negligible—if the IJN player does his job, no carrier will be called on to fight a surface action till the last turn or two.

1 4 5

Kaga (CV). One ship, present at start, with the same considerations as its half sister, the Akagi, except for a slightly more unreliable movement factor. Both carriers could try

to accompany the eight speed carriers, but should have good reason for chancing it.

1 1 8

Hiryu (CV). One ship, present at start. The "3" airstrike factor, not found in any VITP/WAS Allied carrier other than Ark Royal, make three-ASF CVs something of an inter-

mediate unit, with some of a light carrier's weaknesses. The armor factor is a definite weakness; the speed, however, makes it highly compatible for operations with the Zuikaku class.

1 2 8

Soryu (CV). One ship, present at start. Another three ASF carrier, identical to *Hiryu* except for the armor factor, which is more tolerable. This ship rounds out the four

fast IJN carriers; except for the CV classes arriving at game's end (after the crucial battles), the eight speed CVs are the only ones able to operate on extended missions without strategic risk; the rest of the IJN carriers have (effectively) a two area reach out of Truk. These four carriers—Zuikaku, Shokaku, Hiryu, and Soryu—are the only IJN carriers capable of outrunning Allied opposition.

All other IJN carriers, except the late arriving *Taiho* and *Amagi* classes, will be at a disadvantage pursuing (or being pursued by) Allied carriers.

124

Junyo (CV). Two ships, arriving singly on Turns Two and Three. These are the last good-sized CVs that the IJN will get prior to Turn Seven. The airstrike factor makes

them very desirable additions to the main carrier forces, and will be the last quality ASFs the IJN will ever see out of Yokosuka. The armor factor is so-so but comparable to most Allied carriers. The chief drawback to the *Junyo* class is speed; the class is unreliable in extended operations. The IJN player should plan to employ these carriers with others of speeds of six or less. A good procedure is to deploy so that no carriers or light carriers have to travel more than two areas, which usually means lumping the entire IJN carrier force in Truk.

0 3 7

Taiho (CV). One ship, Turn Seven. First (and marginally, the best) of the late-arriving fleet carriers except for the Shinano, perhaps. A speed factor of seven is

no longer an advantage this late in the game, as the entire US carrier inventory (less Wasp) can keep up with Taiho in pursuit. Taiho also suffers from an airstrike factor that is not only smaller than its US counterparts, but unenhanced as well. The unamplified three ASF carriers have this negative characteristic in common, making them light carriers tactically.

1 2 7

Amagi (CV). Three ships, two on Turn Eight and one on Turn Nine; the same comments apply as for the Taiho. The airstrike factor is a limitation, the speed is less impor-

tant now, and the defense factor is comparable to US carriers but nothing spectacular. Object lesson: the latecomers won't save the day if the initial carriers are gone.

1 9 5

Shinano (CV). One ship, Turn Nine. A conversion of the Musashi class, this monster's one asset is its armor factor, which may enable it to last long enough to do some damage.

It can be employed singly or without escort, or both, and possibly break control of an area if large US forces aren't diverted. Such a project would be worthwhile on the last turn, when losses are secondary to points of control. Speed is not remarkable on this ship, but usually sufficient, all things considered.



Ryujo (CVL). One ship, available at start. Speed is a minor limitation, but it's compatible enough to round out most task forces. The armor factor is a weakness; this ship and all

CVLs should generally stay with the larger carriers, which will draw fire and are in better shape to pull through in many cases. The circled airstrike factor is of some importance; *Ryujo* and her cousin CVLs should not be sent off on missions that the LBA might handle. On the first turn, for instance, this ship has no business being elsewhere than in the Raid Force or the Central Pacific. *Any* vessel with a circled airstrike factor should be with the larger units at the decisive points. Taken as a whole, the CVLs have a vital contribution to make. See Critical Issues #1-4 for discussion of first turn CVL deployment.

005

Zuiho (CVL). Two ships, arriving singly at start on Turn Two. Same comments apply as with the Ryujo, except for the armor factor, which isn't. More than ever, the

weakness of these two ships shows the necessity of keeping CVLs with the larger carriers. The sole departure from this practice is in the Central Pacific on Turn One, because of the demands of the Surprise Attack rule, and which has been discussed in this text. Otherwise, these ships should not go it alone. Again, their speed is slow, somewhat, but compatible with most other carriers.

0 1 4

Hosho (CVL). One ship, available at start. The airstrike factor is noteworthy only in that it is circled, and shouldn't be disregarded. The armor factor is low; the speed, as

with the Junyo class, the chief drawback as it makes this ship the only starting carrier ineligible for the Raid Force. This typical IJN problem with slow carriers underlines the need for strong surface escort, as opposed to common American CV/CA combinations. Further, the slow speed of many IJN carriers means that the IJN shouldn't risk losing a carrier battle, as the US can devastate such a defeated force during the pursuit!

0 1 6

Chiyoda (CVL). Two ships, Turn Seven. Fastest of Japan's light carriers, the Chiyoda class can generally accompany the late model CVs. Their airstrike factors are negli-

gible unless combined with the *Taiho* and *Amagi* classes. As with all CVLs, there is no gunnery factor; this is yet another argument for using CVLs to augment larger forces.

0 0 4

Ryuho (CVL). One ship, Turn Seven. Poorest of the game's carriers, this ship has all of the Zuiho class' drawbacks, capped by poor speed and a puny airstrike factor. Of

minor use supplementing the late model carriers; of no use on its own.



Musashi (BB). Two ships, third and fifth turn arrivals. The most powerful single units in the VITP/WAS games, these ships are at their best in the main line of battle. Formi-

dible as these units are, they shouldn't be counted on as separate forces or in a patrol status; the chief weakness of this class is its vulnerability to 'disabled' results, which knock them out of action as easily as any cruiser, leaving a big hole. This class also won't stand up to heavy air opposition alone, and the South Dakota and Iowa classes can match their gunnery, ship for ship. Chief advantage of these ships, strange as it may seem, is their speed. The Musashi class can readily accompany most carriers on extended operations, which the Mutsu and Fuso classes find difficult. In basic terms, these two ships are the best fullbacks in the game; their place is with the flat-topped QBs, not trying to be the star players that their notoriety might suggest.



Mutsu (BB). Two ships, available at start. The gunnery and armor factors are larger than many enemy battleships, at start; this class is still a match for later US dreadnaughts.

Speed is a disadvantage for all IJN game starting battleships, both in terms of strategy and, tactically, pursuing (or being pursued by) American forces. These ships may be of some use in an independent role, possibly as escort for a small carrier task force (something that cannot be said for the *Haruna* and *Fuso* classes). Best role for this class is with the main escort of a short range, large task force in conjunction with the *Fuso* class.



Fuso (BB). Four ships, all available at start. Gunnery and armor factors are exactly average for battleships early in the game. Speed is a disadvantage in combined opera-

tions, but is better than most early Allied battleships. Another advantage is the size of the Fuso class, which, combined with the Mutsu class, forms a compatible, formidible force against the fragmented Allied battleship/cruiser line early on. Central positioning in Truk will maximize this. These ships will be in trouble later against newer US units, but there isn't much choice in this. The Fuso class is there in force because the other classes generally are too few or fragile to form the line of battle.



Haruna (BC). Note the choice of term for these four game-starters. They alone of the initial battleline accompany the Raid Force (the other battle units can't, and should handle

other first turn missions). The Haruna class can also keep up with most carrier task forces after that. Their speed, their main advantage, allows them extended operation in the face of much slower Allied battleships early on, while their gunnery factor is standard for early war battle units on both sides. Their weakness is their armor factor, which makes them short lived in a major battle. Still, their speed and obvious role, that of carrier escort, make this risk hard to avoid. It is suggested that other battle classes carry the escort mission for short cruises. The best situation for battle-cruiser deployment is in raid forces, at long distances, particularly against weak Allied (cruiser) opposition.



Ashigara (CA). These and all IJN cruiser units arrive at start with no replacements. Main advantage of all cruiser classes is gunnery factoring, making the IJN cruiser force

(not just the eight ships of the Ashigara class) particularly nasty en masse. Thus, this class is at its best as a unified escort force. Five Ashigara class are more than a match for any Allied battleship, but IJN cruisers are best used against their US counterparts. A one-to-one exchange of gunfire between Japanese and Allied cruisers will go badly for the Allies, due to the enhanced gunnery factors of the former. Subsequent rounds would see more and more IJN cruisers able to help the IJN battle units. And, in large numbers, IJN cruisers can take on the Allied battleline while any excess battleships go for the carriers. The massed IJN cruiser force can help tilt the balance of surface forces against their US counterparts (see rule 7.424), and damage the US cruiser fleet while so doing.



Kumano (CA). Six ships, the fastest surface units in the game. That is their distinct advantage over all other cruisers, in that they can retreat from any Allied units without

being pursued. This class, then, is the best for patrolling, especially in isolated areas, as these ships have a better (though not overwhelming) chance of survival. Such patrols, though, should be made as seldom as possible, as carrier escort has a higher priority. As with the Ashigara class, these ships should oppose enemy cruisers in a general engagement. If caught alone, these cruisers should aim for the biggest surface units, as the combat bonus means a chance of inflicting substantial damage.



Landbased Air units. Six available at start with unique tactical and replacement characteristics. These units, being replaceable, should be placed where the IJN wouldn't want

to riskships, which only sink once. LBA units, of course, shouldn't be squandered, but can be used to patrol large parts of the board, enabling the IJN to concentrate its ships.

LBA units, being what they are, will require US or RN carriers to dislodge them, at risk, unless Allied LBA can intervene. One LBA will make the Allies take risks, but Allied carriers could dislodge it. Two LBA will require greater commitment of enemy carriers, and greater risk, to dislodge them; three will generally make the Allies think twice. Four LBA units will generally suffice to secure

Indonesia on Turn One.

LBA units can also support IJN carriers, particularly in late game defensive action. Such a combination is particularly useful in a last ditch defense of the Marianas or Japanese islands.

LBA units on both sides can negate carriers' offensive power. A carrier attacking LBA loses any combat bonus and has to ignore 'disabled' results, while the LBA units suffer no such disadvantages. The usefulness of LBA patrols is underlined; only Allied LBA units can effectively displace them.

Japanese LBA units are disadvantaged in that the Allies place theirs secondly, piece by piece. The quantitative (eventual) superiority of Allied LBA actually offsets IJN quality in that the enemy can "ante up" in a given area, the IJN finding (too late) that more Allied air units are yet to be added to a bad situation. Any Allied landing means the potential introduction of enemy LBA into more IJN areas. And, although two IJN LBA equal three enemy, the Allied air units are as durable and are more apt to stay around, collectively.



Furutaka (CA). Four ships, their only distinct advantage being the circled gunnery factor. These ships can patrol unimportant areas or supplement carrier escorts, preferably the

latter. Remember that the IJN cruisers outnumber their enemy counterparts put together, 20-19 at start, with the non-US cruisers additionally hobbled by range restrictions in movement, leaving the 15 US cruisers to form most task forces. Thus, massed IJN cruisers can threaten American carriers by their numbers, and the Furutaka class is at its best supporting this effort.



Kitakami (CL). Two ships, vulnerable because of a nonexistent armor factor, but still as potent as any cruiser As expendable as any IJN unit could be, these ships (and, to a lesser extent,

the Furutaka class) and relieve LBA units of the task of patrolling unimportant or rear echelon areas. In a general engagement, these ships wouldn't last; better use can be made gathering POC instead.



Amphibious units. Appearing once each over the first three turns, the amphib units have great strategic importance. Their usefulness, especially the Yokosuka unit, is detailed

in Critical Issue #8.

The IJN amphib units are inferior to US Marine units in that, besides the weaker armor factor, the IJN units must be moved before enemy Marine forces.

This gives the US the powers to parry an IJN invasion (by positioning a counter-invading Marine) and to be free of IJN parries.

IJN invasions are also threatened by surprise US raids, deployed after IJN raid forces.



I-boat (SS) One unit, available at start; removed on Turn Six. This unit's sole function is to snipe at Allied ships, preferably US carriers. The I-boat's main advantage is mov-

ing last in the turn sequence, anywhere on the board. It's the one chance the IJN has of countering US raids after the fact.

CRITICAL ISSUE #16: Ship Classes, Allied

This analysis begins with non-US ships. Note that these ships, unlike US or IJN vessels, are deficient in radius of action. British, Australian, and Dutch units have to make speed rolls upon entering a second area, whether patrolling or raiding; movement to a third area is impossible.

This not only removes the non-US ships as a surprise-raid threat, but cuts the British *effective* range down to *one* area because of the slowness of British battleships, which are needed for escort purposes. The RN is further hobbled by restriction to Ceylon (forget Singapore, Saigon, or Yokosuka).

027

Indomitable (CV). Four ships, two arriving Turn Two, one on Turn Three, and two leaving on Turn Four; Victorious appears at Pearl on Turn Five. The latter is the only RN

unit able to operate detached, but leaves on the next turn. Chief limitation of the I class, besides radius of action, is the airstrike factor, making them tactically inferior to Allied LBA. I class speed gets them into Indonesia or the Indian Ocean easily, but their escort is apt to be a matter of chance. This class is strongest on Turn Four, but will be gone on Turn Seven unless removed earlier by attrition. These units are the RN's only offensive weaponry; without them, the RN is left to Bay of Bengal patrol or support of a chance US task force.



Hermes (CVL). One ship, available at start. Slow speed is a particular drawback on a British ship, leaving it with only a 50-50 chance to reach Indonesia. This ship is probably best used to patrol the Bay of Bengal.

4 5 6

Prince of Wales (BB). Best of the British fleet in VITP, and the first to leave. If it survives the first turn somehow, it would be an excellent escort for the I class carriers. The

speed and armor factors would also be valuable, if . . .

Repulse (BC). Again, a speedy companion for the I class CVs, if it survives the first turn. Armor and gunnery factors are unusually weak for a battle unit, by VITP standards.

Warspite (BB). Two ships, apearing singly on Turns Two and Three; both are removed at the end of Turn Four. Gunnery and armor factoring make these ships exact counterparts

to the Fuso class, if you ignore range problems. The speed factor is a drawback but has to suffice if the RN presumes to attack Indonesia. These ships are necessary escorts as British cruisers are few.



Revenge (BB). Four ships, one appearing at start, three on Turn Two; two leave with the Warspite class at the start of Turn Five, and one more leaves on Turn Seven.

Again, gunnery and armor factors make for an even match with the IJN Fuso class; indeed, British battleships are expedient means of attritioning the IJN battle units, if they have the opportunity. Getting to the battle is a real weakness of the R class, as they have only a 33% chance of getting to Indonesia. The R class is actually useful in patrolling the Bay of Bengal, freeing the cruisers and Warspite class to chaperone the carriers. Indeed, one or two R class can stay behind on patrol, permitting their sisters to take their chances.



Lexington (CV): Two ships out of the five US carriers available at start. The four bonus airstrike factors are a common advantage of all US carriers. The Lexington class is mar-

ginally superior in that it has a good armor factor (for a CV); a single gunnery factor is an asset that is best left unused. As all American carriers have speed factors of seven, all classes are compatible with each other (including CVLs); the speed is a distinct advantage over many slower IJN carriers. The six carriers of the Lexington, Enterprise, and Wasp classes are the paramount Allied strategic asset; one-on-one attrition with the IJN, or secondary missions, cannot be afforded. The best bet is to combine these carriers and try for local superiority, particularly as raiders, a mode that the IJN can't counter. The Lexington class and its

prewar cousins are distinct from the Essex class in one particular: The Essex class can win the game only if the first six carriers don't lose it.



Enterprise (CV): Three ships, all available at start. The armor factor is weak, but comparable to the Lexington class in that neither can take much punishment. The same

employment considerations apply to both classes; the turn sequence allows raiding carriers to pick which IJN force to attack (in range), or whether even to fight. This will help preserve the carriers and enhance their potency as a unified force. Pearl Harbor, Australia, and Samoa are useful bases in the early turns; the five carriers are concerned with a "two tier" concept. The two "tiers" are, of course, the Allies' board-edge areas, along with a second "tier" of the outer IJN perimeter consisting of the Marshalls, the Aleutians, the Central and South Pacific, and Indonesia. One "tier" to defend (if possible), one "tier" to probe, with attrition being a major US concern.



Wasp (CV): One ship, arriving Turn Four, and a needed supplement to US carrier forces. The Wasp is at some disadvantage due to its uniquely slow speed, which won't prevent a

three area raid along the outer tier, but will make it chancy. Still, the Wasp's airstrike factor makes it a match for any IJN carrier, and the Allies need all the help they can get when the Wasp finally arrives from the Atlantic.



Essex (CV): Ten ships; three arriving on Turn Six, four on Turn Seven, one on Turn Eight, and two on Turn Nine. Arrival of the Essex class represents the turning point in

the game; indeed, the Essex, Independence, and surviving prewar classes could very well crush the IJN unless enemy air units are at hand. The objective of the Essex class should be to destroy circled ASF enemy carriers; secondarily, to defend patrols and invasions into IJN territory. Marine units should be used to establish LBA bases to augment the Essex class and provide the fleet with forward bases.



Independence (CVL): Nine ships; five arriving on Turn Six, three on Turn Seven, one on Turn Eight. These are a powerful addition to the Essex class, and also present a

more dispersed target to enemy LBA units at two ASF per ship. The primary mission of the Independence class, and its employment, should be synonymous with the Essex class, however. The Independence class is equal to any enemy CVL, and is usually much better.



Arizona (BB): Six ships; four appear on Battleship Row at Pearl, two more appear on Turn Nine. The raid survivor will find their lack of speed a disadvantage; unless they

can base within two areas of a target, they will be unlikely to escort carrier/cruiser groups. Basing the slow battleships out of Australia will prove helpful, as they can both threaten Indonesia and the South Pacific and be on hand to defend the board-edge from Ceylon to Samoa. The Arizona class' usefulness tactically is: a) reinforcing the escort numerically, protecting the carriers, and; b) attritioning the enemy battleline. In the latter regard, the slow battleships are more expendable than cruisers.



California (BB): Five ships; two on Battleship Row, two more on Turn Two, one on Turn Three. This class is comparable to the Arizona class in characteristics and employ-

ment, though the armor factor is superior to the Fuso and Haruna classes. Besides Australia, this class and the other slow (speed three) battleships will find New Hebrides, Guadalcanal, or Lae to be excellent forward bases of opportunity.



Maryland (BB): Three ships; two on Battleship Row, with a third arriving Turn Three. This class has the same speed and deployment considerations as the Arizona and

California classes. The armor and gunnery factors are strong advantages and can stand up to anything except the Musashi class. The US player should try to get this and all other slow battleship classes into battle as often as possible, as their speed will limit their opportunities.



North Carolina (BB): Two ships, arriving singly on Turns Three and Four. The gunnery factor is good, the armor factor even better, and, best of all, the speed enables this

class to accompany the carriers, usually. This class is at its best as an escort, where it will have ample opportunities to both defend the carriers and engage the enemy.



South Dakota (BB): Four ships; two arrive Turn Four, one each over the next two turns. This class makes up the main US battleline prior to the appearance of the Iowa class.

The South Dakota and North Carolina classes are at their best united, part of a general fleet escort into enemy waters. The two classes are identical, except for the former class' circled gunnery factor, making them a match even for the Musashi class.



Iowa (BB): Four ships; two each on the sixth and seventh turns. The only battleships in the game capable of unquestioned three area raids, the Iowa class can keep up

with CV/CA forces, which is exactly what it should do. This class' outstanding firepower, armor, and speed make it too valuable for anything other than the largest offensives. The Iowa class is admirably equipped to engage the enemy battleline; all things considered, the best in the game.



Alaska (CB): This one last turn arrival makes its speed essential to get to the action from Pearl. The armor factor is tolerable, while the gunnery factor is weak in a turn

where annihilation of IJN patrols is vital. At this point in the game, so many US ships are available that this is little more than a face in the crowd. Still, it can get to the action, while its companions (two Arizona class battleships) might not.



Exeter (CA). Five VITP-identical British cruisers; one at start, two each appearing on Turns Two and Four. Their sole advantage is their ability to keep up with the carriers;

they're otherwise inferior to their IJN counterparts and unable to raid at three areas' distance. Because of their speed, the RN cruisers should serve as consorts to the carriers, rather than on patrol. The Exeter is one of five Allied cruisers able to move on the first turn (see Critical Issue #12), and if not offensively employed it should patrol the Indian Ocean and return to Ceylon, rather than share the Prince of Wales' fate. The better part of valor, what?



Australia (CA). Two Australian cruisers, plus the identical HMNS De Ruyter; all available Turn One. They share the same characteristics as the Exeter class, except for their

ability to use any friendly port. Their range limitation (two areas) means that they can't accompany the USN at long ranges, but they can support American forces within a two area distance, and their numbers could help the escorts defend the carriers in a night action. Another use for these three is rear-area patrol, freeing Allied air units to contend for forward areas. One advantage unique to these Allied cruisers is their ability to base in Ceylon; however, they can support the RN from Australia just as well.



Baltimore (CA): Four ships, arriving two each on Turns Six and Seven. This class has one minor advantage in its armor factor; otherwise, the Baltimore class is still

inferior to the Ashigara class. Worse, this class can't make up for an early loss of US cruisers. The speed of this and all American cruisers allow them to escort the carriers, their paramount duty.



Astoria (CA): Fifteen identical ships start the game, with a 16th arriving on Turn Five. All can readily patrol out to two areas' distance and can raid out to three;

their chief role is to chaperone the carriers. Though employable as patrollers (though non US cruisers are preferable), overuse in this role (two or more per area) will cause needless losses, as the extra cruisers won't stop an IJN fleet on the rampage. The US player should remember rule 7.424 and keep the cruisers with the carriers, for after all, if both the US and IJN have 15 cruisers, and the Yamato is also present, guess which ship fires at a carrier?



Landbased Air (LBA): Ten total, two each appearing on Turns One through Five. Allied LBA are individually inferior to their enemy counterparts, but superior in overall

quantity and factoring. Their tactical and patrol advantages are identical to enemy LBA units (see Critical Issue #15 for Allied LBA interaction with their enemy counterparts). A critical advantage to Allied LBA is the fact that retreating LBA units aren't subject to pursuit.

Air units are best placed, from the Allied viewpoint, to patrol as many areas as possible, freeing Allied cruisers to form carrier task forces. In later turns, the air units can contest forward areas and leave rear areas to the odd surface unit.

Placement considerations for Allied LBA: One unit won't faze a major offensive, but can take a quick shot at a carrier. Two units will pose a risk to a carrier force, if they keep shooting to the bitter end, as their loss would be worthwhile if they take down a carrier. Three or four LBA will generally hold an area against most seagoing opposition.

Till Turn Five, the LBA, leapfrogging with the Marines, should be the vanguard of the Allied offensive; the carriers are too valuable to risk. Critical Issue #13 shows how US air and Marine units can lever the enemy out of vital areas in the face of naval superiority, especially if a massed US carrier task force is posed as a threat. Marines can advance to Guadalcanal, thence to Lae, covered by LBA from the former, and so forth. Such tactics aren't easy or foolproof, but can offer an amazing amount of strategic leverage.



US Marine units. Five in all; two appear Turn Three, followed by one each on Turns Five, Six, and Eight. The fact that they move after their enemy counterparts is a problem for

enemy amphibious and raid plans; the enemy raid must deduce whether the Marines are a decoy, a baited trap, or the vanguard of a major US raid.

Overall uses of Marine and IJN amphib units are mostly identical. The Marines have an advantage in overall numbers, and their redeployment to Australia can offset the IJN central position at Truk. US major ports limit them in that Pearl and Australia can only reach the outer IJN bases; to land on Saipan or Okinawa will require two turns' advance planning.



F-boat (SS). Appears on Turn Seven; identical to its UN counterpart in all respects. The F-boat appears when the I-boat leaves, and moves at the same time in the turn sequence. Its usefulness

is best against large carriers (especially any surviving bonus factor carriers) though not against the Shinano, unlike the actual event.

CRITICAL ISSUE #17: Peroration

For such a playable game, VITP strategy is extremely complex. Land, sea, and air units interact; wide choices of movement are posed. This article, running to 38 manuscript pages, has addressed a few possibilities, and posed a few ideas.

This is a particular reason for the "Commander's Notebook" format. The Critical Issues are meant as a way of segmenting an almost infinite subject field. An attempt to encompass all VITP subject matter would be ludicrous; better to take the broad tapestry of the game in a few segments.

One particularly daunting subject is conduct of VITP in the late turns, i.e., after the arrival of the Essex class. Beyond a few generalities, I dared not predict the course of a VITP game that late. Such events will be determined by VITP players' own individual strategies and their own native intelligence, to which this article merely poses suggestions.

Indeed, any strategy analysis in THE GENERAL, particularly the "best move" plans, must address this. The point-counterpoint discussion of strategies herein has considered this, for any "perfect" strategy can be punctured, given a player with enough on the ball. Too many strategy articles, in their enthusiasm, plead one side while using the other for bayonet practice.

You, the player, are still the best strategist in at least one regard. You're the commander, on the scene with a live enemy. Your're there and that is infinitely superior to any number of "if" modifications.

CONVENTION CALENDAR

JULY 11-12

COLONIAL CITY GAMEFEST V, Mount Vernon, Ohio

Contact: Mark Morrison, Mt. Vernon Gamers Association, 205 West Gambier, Mt. Vernon, OH 43050. (614) 397-3785.

Note: Planned games include Avalon Hill's B-17, GUNSLINGER, THIRD REICH, FLIGHT LEADER, SPEED CIRCUIT, GLADIATOR and WIZARD'S QUEST.

AUGUST 22-23

SL RALLY-SOUTH, Conway, Arkansas Contact: On All Fronts, P.O. Box 265, Marshall, AR 72650.

Note: Third national tournament with levels from SL through ASL.

SEPTEMBER 4-6

ONTARIO ASL CAMPOUT, Oshawa, Ontario Contact: Gord Reid, 66 Westmount Street, Oshawa L1J 4X3, Ontario, CANADA.

SEPTEMBER 4-7

WINGAMES VIII, Winnipeg, Manitoba Contact: Oliver Bernuetz, P.O. Box 80 University Center, University of Manitoba, Winnipeg R3T 2N2, Manitoba, CANADA.

SEPTEMBER 5-6

GOLD-CON, Coconut Creek, Florida Contact: John Dunn, BCC North Library, 1000 Coconut Creek Blvd., Coconut Creek, FL 33066.

AREA TOP 50 LIST

1. K. Combs 54 2517XOW 1 2. D. Burdick 53 2223GGO 2 3. J. Beard 43 2168HIP 9 4. J. Noel 7 2168DDJ 3 5. J. Kreuz 48 2162HGO 4 6. B. Sinigaglio 39 2152GLJ 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HKK 11 12. P. Flory 30 1999EMK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14	Rank	Name	Times On List	Rating	Previous Rank
2. D. Burdick 53 2223GGO 2 3. J. Beard 43 2168HIP 9 4. J. Noel 7 2168BDJ 3 5. J. Kreuz 48 2162HGO 4 6. B. Sinigaglio 39 2152GL 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906LS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820DF 40 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	10	K. Combs	54	2517XOW	1
3. J. Beard 43 2168HIP 9 4. J. Noel 7 2168DDJ 3 5. J. Kreuz 48 2162HGO 4 6. B.Sinigaglio 39 2152GLJ 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 1871GIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1930CDH 47 48. L. Barlow 1 1786JJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	1000		700		
4. J. Noel 7 2168DDJ 3 5. J. Kreuz 48 2162HGO 4 6. B. Sinigaglio 39 2152GLJ 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. E. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. E. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1966ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 1 1809DDF 40 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1930CDH 47 48. L. Barlow 1 1786JIT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —			75.66		
5. J. Kreuz 48 2162HGO 4 6. B. Sinigaglio 39 2152GLJ 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 197TIDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA	1.000				3
6. B.Sinigaglio 39 2152GLJ 5 7. E. Mineman 24 2119DFG 6 8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GlO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 1 1809DDF 40 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47 48. L. Barlow 1 1786JJT — 49 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
7. E. Mineman 8. P. Siragusa 9. D. Garbutt 10. S. Sutton 11. P. Gartman 12. P. Flory 13. E. Preissle 13. E. Preissle 14. M. Sincavage 15. B. Remsburg 16. T. Oleson 17. R. Beyma 19. 1977RJL 19. F. Reese 19. 1977RJL 19. F. Reese 19. 1977RJL 19. F. Reese 19. 1977RJL 19. F. Freeman 29. 1964EFG 21. E. Freeman 29. 1964EFG 21. E. Freeman 29. 1964EFG 21. E. Freeman 29. 1964EFG 21. F. Freeman 29. 1964EFG 21. E. Freeman 29. 1983MIN 20. E. Coronnor 10. E. Raller 30. B. Schoose 19. 187IGIM 30. B. Schoose 19. 187IGIM 31. G. Smith 32. E. O'Connor 12. 1841FGM 33. J. Eliason 34. N. Cromartie 39. 1833GHO 34. N. Cromartie 39. 1834GHO 34. N. Cromartie 39. 1836GHO 34. N. Simonitch 41. J. Anderson 11. 1807DFH 42. J. Martin 12. 1807DFH 43. M. Simonitch 44. R. Phelps 35. 1806HJQ 47. M. Frisk 48. 1793CDH 49. F. Ornstein 37. 1786GHM 39. F. Ornstein 37. 1786GHM 39. F. Ornstein 37. 1786GHM 39. F. Ornstein 39. E. Miller 40. 1783HJQ 40. E. Miller 41. 1783HJQ 42. E. Ornstein 43. I. Elliler 44. I. I. Illiler 45. M. Miller 46. G. Garrell 47. M. Frisk 48. Illiler 49. F.			39		
8. P. Siragusa 48 2110FHK 7 9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 193CDH 39 48. L. Barlow 1 1786JJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	7.		24		6
9. D. Garbutt 52 2106GIO 8 10. S. Sutton 21 2029FHN 13 11. P. Gartman 19 2025HHK 11 12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sincavage 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CF1 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 1 1809DDF 40 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1930CDH 39 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —			48		
10. S. Sutton	9.		52	2106GIO	8
12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 14. M. Sinoratoge 43 1988EFK 16 15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 19. F. Reese 34 1977IDJ 18 19. F. Reese 34 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH —— 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 21 1820FIP 44 44. J. Anderson 11 1809DDF 40 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JHT —— 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	10.	S. Sutton	21		13
12. P. Flory 30 1999EHK 15 13. F. Preissle 51 1992MNY 10 10 10 10 10 10 10 1	11.	P. Gartman	19	2025HHK	11
13. F. Preissle	12.	P. Flory	30	1999EHK	15
15. B. Remsburg 37 1987HIQ 12 16. T. Oleson 63 1985YZZ 24 17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH	13.		51	1992MNY	10
16. T. Oleson	14.	M. Sincavage	43	1988EFK	16
17. R. Beyma 29 1979DDG 17 18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 1	15.	B. Remsburg	37	1987HIQ	12
18. H. Newby 19 1977RJL 14 19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1933DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1833CDE 35 36. S. Johns 7 1831HFI	16.	T. Oleson	63	1985YZZ	24
19. F. Reese 34 1977IDJ 18 20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1833GDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786HJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	17.	R. Beyma	29	1979DDG	17
20. P. Landry 28 1967HIN 20 21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger	18.	H. Newby	19	1977RJL	14
21. F. Freeman 29 1964EFG 21 22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1831HFI 36 37. P. Halfman	19.	F. Reese	34	1977IDJ	18
22. C. Corn 3 1953DEA 19 23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman <t< td=""><td>20.</td><td>P. Landry</td><td>28</td><td>1967HIN</td><td>20</td></t<>	20.	P. Landry	28	1967HIN	20
23. W. Scott 51 1932MJV 23 24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartic 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe	21.	F. Freeman	29	1964EFG	21
24. G. Schnittker 1 1924CEH — 25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1807DFI <td>22.</td> <td>C. Corn</td> <td>3</td> <td>1953DEA</td> <td>19</td>	22.	C. Corn	3	1953DEA	19
25. T. Deane 6 1908EBB 30 26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 1871GIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 182BDED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH	23.	W. Scott	51	1932MJV	23
26. R. Leach 55 1906ILS 25 27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 1871GIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson	24.	G. Schnittker	1	1924CEH	_
27. L. Kelly 47 1889WWZ 26 28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 1871GIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin	25.	T. Deane	6	1908EBB	30
28. M. Rogers 14 1880CEH 27 29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 1871GIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1807DFI 41 42. J. Martin 12 1807DFI 41 43. M. Simonitch </td <td>26.</td> <td>R. Leach</td> <td>55</td> <td>1906ILS</td> <td>25</td>	26.	R. Leach	55	1906ILS	25
29. K. McCarthy 8 1872CFI 28 30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 182BDED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps </td <td></td> <td>L. Kelly</td> <td>47</td> <td>1889WWZ</td> <td>26</td>		L. Kelly	47	1889WWZ	26
30. B. Schoose 19 187IGIM 29 31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 184FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartic 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HF1 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller <td>28.</td> <td></td> <td>14</td> <td>1880CEH</td> <td>27</td>	28.		14	1880CEH	27
31. G. Smith 8 1846FGM 32 32. E. O'Connor 12 1841FGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell <td></td> <td></td> <td></td> <td>1872CFI</td> <td></td>				1872CFI	
32. E. O'Connor 12 184IFGM 33 33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow				1871GIM	
33. J. Eliason 2 1840DGK 50 34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ					
34. N. Cromartie 39 1838GHO 34 35. R. Berger 3 1833CDE 35 36. S. Johns 7 183IHFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786HT — 49. F. Ornstein		E. O'Connor		184IFGM	
35. R. Berger 3 1833CDE 35 36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JHT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller		J. Eliason			
36. S. Johns 7 1831HFI 36 37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFH 42 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786GHM 39 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
37. P. Halfman 4 1830GGN 37 38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
38. P. DeVolpe 20 1828DED 38 39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JIT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	10 T G T C C		170		
39. B. Salvatore 21 1824GKO 49 40. D. Mattson 2 1820HIP 44 41. J. Anderson II 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JIT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	100000000000000000000000000000000000000				
40. D. Mattson 2 1820HIP 44 41. J. Anderson 11 1809DDF 40 42. J. Martin 12 1807DF1 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JIT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	1,7075		-		-
41. J. Anderson II 1809DDF 40 42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
42. J. Martin 12 1807DFI 41 43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786IJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
43. M. Simonitch 24 1807DFH 42 44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					2.00
44. R. Phelps 35 1806HJQ 43 45. M. Miller 40 1795GHO 46 46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JIT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
45. M. Miller 40 I795GHO 46 46. G. Garrell 1 I794GEC — 47. M. Frisk 8 I793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
46. G. Garrell 1 1794GEC — 47. M. Frisk 8 1793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
47. M. Frisk 8 I793CDH 47 48. L. Barlow 1 1786JT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —					
48. L. Barlow I 1786IJT — 49. F. Ornstein 37 1786GHM 39 50. E. Miller I 1783HJQ —	0.05000		100		
49. F. Ornstein 37 1786GHM 39 50. E. Miller 1 1783HJQ —	4.00000				47
50. E. Miller 1 1783HJQ —	1000000				-
					39
	50.	E. Miller	1	1/83HJQ	-

MEET THE FIFTY . .

Mr. Steve Sutton is 48, married and father of five, holds a BS from the University of Illinois and is a Special Agent for the U.S. Treasury in Petersburg, Illinois.

Favorite Game: Variable

AREA Rated Games: STAL, DD, AK, WATERLOO AREA W-L Record: 21-5

Gaming Time/Week: 10 hrs.

Hobbies: Sports, Bridge, Chess

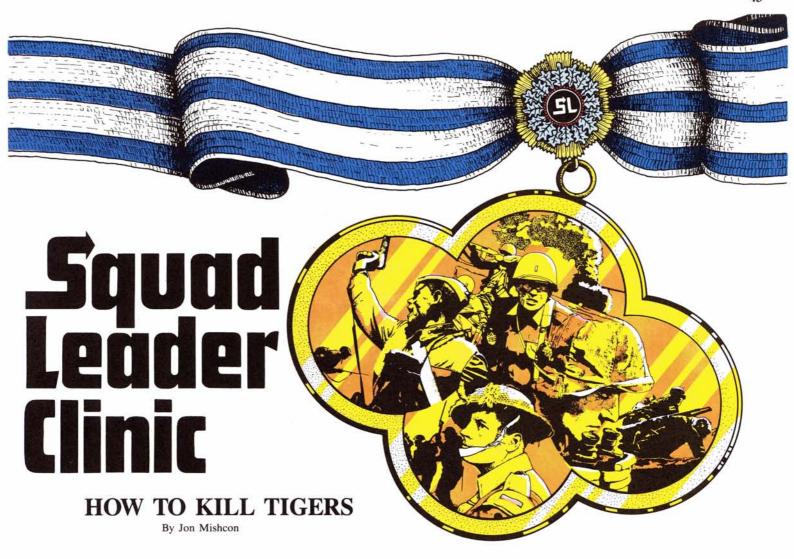
Pet Peeve: Humorless opponents.

Time PBM: 90%

Play Preference: PBM

Mr. Sutton makes a plea for games designed with PBM in mind:

"Recent years have seen a vast proliferation of new games. Unfortunately, not one of them has been designed or supported for PBM use. There have been welcome revisions of existing titles, and convoluted attempts to adapt new games to a PBM format. These are poor substitutes for an all-new game designed specificially for PBM. I realize that it is difficult to incorporate state-of-the-art concepts into a onemailing format, but surely there is a designer capable of this feat. Any title can be played FTF; the accomplishment would be to produce one that also has PBM potential. PBM enthusiasts have too long been neglected by the industry's designers.'



ASL finally gives the heavy tanks of WW2 their historical due. A T-34 commander quickly learned that a Tiger was not just difficult to kill with a front shot—barring a critical hit, it was impossible. The see-saw of technological advances allowed many tanks brief stardom followed by a lingering fall into obscurity. For those players given PzKw IIs versus KVs, or T-34s against PzKw VIEs (or even Shermans against JgPz VIs), the task seems daunting. As we worked at rebalancing "The Paw of the Tiger" it became evident that a Clinic might be in order as to how light tanks take on their heavier brethren.

OK, you've just sat down with a horde of light tanks and the other guy gets the big boomers. What do you do? The most important consideration has to be, "What must I do to win the scenario?" If you can win without fighting, then that's usually your best bet. If you must fight to win, then must you kill or can you just immobilize? An immobilized tank is often "mission-killed" regardless of how potent its armor and gun. If you must fight and must kill, do you have non-armor resources that can do the job better than your tanks? Infantry, even without special SWs, are potent tank killers in dense terrain.

However, for those who must fight, must kill, and must use armor, then this article discusses the most common tactical tricks that you can use when your side has armor that is easily penetrated by enemy guns and your main guns cannot kill the enemy frontally.

The most important and frequently wasted tool is *time*. All too often we see ten-turn scenarios ending on Turn 6. If a scenario gives you ten turns, plan on using them all. If your opponent holds his fire till the end, then don't move the last few vehicles. If he starts to shoot early, then start to scoot forward. Remember that

the more shots he takes, the more likely he is to break a gun.

Motion status at the end of a turn decreases vulnerability and increases movement in the next MPh. If you can't shoot it out, then keep moving. Dazzle him with your footwork. Don't forget to turn in place if you must to simply stay in motion.

The use of cover is critical. Look for walls (HD), gullies (usually out of LOS while therein), and movement through woods and VBM to decrease exposure. Use smoke shells and vehicular smoke dispensers to reduce visibility. Remember that if you throw a particularly vulnerable AFV forward and it burns, you can use its smoky pall to hide behind.

Risk ESB routinely but sparingly. If the choice is between staying in the open or getting behind cover, then always go for the extra movement. Additionally, the judicious use of ESB makes your opponent calculate what he must do if you move 125% of normal. Nice for discomforting him.

Don't hesitate to expose your rear if your frontal armor is nearly worthless anyway. Better to move along briskly rather than depend on marginally better armor protection.

If the enemy moves toward you and you are stopped, don't shoot—get into motion (D2.401). If you fail, there is time enough for desperate shooting. If you have hordes of AFVs, then use "stop-and-go" fire ("Gun Duels") and pray for a critical hit. Sure it's less than a 3% chance, but for every couple of gun malfunctions, the gods of chance owe you a CH. Even better is that "stop-and-go" fire may preserve your ROF while Advancing Fire is limited to one shot. Better still is baiting your opponent into taking lousy shots as you move from

cover, fire ("come on, snake eyes") and then zip back into cover.

Use HE if need be. High explosive is often great against CE AFVs (don't forget to use your MGs too) or detrack the behemoths. Occasionally HE will be strong enough to allow real shock effect. Use special ammo early. Like as not, most vehicles won't survive, so best use that APCR/HEAT while you've got the chance.

When you do finally close in for the kill, maximize your chances whenever possible. This may mean moving through the enemy AFV's hex in order to get a rear shot. It's a great way to disconcert the enemy player and increase your killing power at the same time. Get adjacent and use Intensive Fire in addition to Gun Duels. We try to get four light tanks to surround one "biggie". This gives you the maximum TH and TK modifiers, so you may as well go for broke.

If you are "brewed up" on your approach, roll for CS. Two or three crews can often end up rushing a vehicle. The best you can hope for is to divert the enemy's attention, but there is always the chance of a berserker or a hero. Use everything in these situations.

Lastly, if the "pedal is to the metal" and nothing seems to work, you can always go for deliberate immobilization and hope he abandons the vehicle. (Remember, we are presupposing for this discussion that you must kill it.) True, Deliberate Immobilization is +5 TH DRM, only works with hull hits, and acquisitions are valueless. Nonetheless, we constantly use our ordnance smaller than 45mm to go for immobilization. Often these guns have a high ROF which allows for more than one attempt. The

Germans may have called the 37mm ATG "door-knocker", but we use them more as door-stoppers. (A playbalance note: if players end up preferring the 37L ATG to the 50L, then you might want to consider having the crew pass a TC before each Deliberate Immobilization shot; in the midst of battle, it would be remarkable that anyone would try to simply stop rather than kill the iron monster.)

The "Paw of the Tiger" is a great teaching scenario. The T-34s and T-43s are vastly superior to the PzKw IIINs and equally inferior to the Tigers. Appended, players will find two ASL reworkings of COI scenarios, including the infamous Scenario 14.

After Action Report-Timoshenko's Attack

These notes continue the series of commentaries in the Clinic pertaining to the scenarios published with the previous installment of the column (Vol. 23, No. 3 in this case). The intent is to provide the ASL player with one of numerous possibilities for defensive setup, attacker initial placement, and basic tactical approaches for both. Having had several months to examine your own approaches to our Clinic scenarios, the reader can compare his findings with our summation.

GERMAN: 8-1 leader, two squads and a LMG in 10T6; 9-1 leader, squad with HMG on first floor of 10U5. Place a squad and LMG in 22Q1; the 9-2, two squads, LMG and MMG in 22Q3; squad and LMG in 22Q8. Place a squad and LMG in 11Q1; 8-0 leader radio and squad in 11W3. Put the rest of the force in reserve.

RUSSIAN: Fairly straightforward. Group 1 attacks on Board 11; Group 2 attacks Board 22; and Group 3 on Board 10.

ATTACKER'S TACTICS: If the radio is on Board 11, your best bet is still to use the open terrain for the tanks, but to use independent movement once you have to button up. Board 10 is very tough to assault, so be bold for the first two turns and try to get the German to overcommit there. Board 22 is the one you're most likely to win on with whatever group you use. Try to outflank the initial German line and press forward fast.

DEFENDER'S TACTICS: Don't forget that the LMGs and the 50mm MTR are valuable anti-tank weapons. Have your screen fall back slowly while your reserves throw back any infiltrating attackers. Most importantly, don't commit too much to any one board. Time and again players will find that the German player wins handily on two boards only to lose the whole scenario on the third. This scenario may well require repeated play before you form an opinion.

COPIES

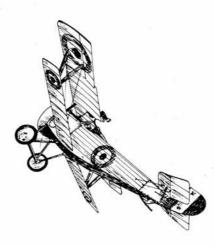
If the reader should need a copy of an article from an out-of-print back issue of The GENERAL or one of the Wargamer's Guides, The Avalon Hill Game Company does provide a photocopying service. The charge for this service is \$1.00 per page, with a minimum order of five pages required. Please specify the article title, volumn and number it appeared in, and the pages on which it can be found; the GENERAL Index is invaluable for this (\$4.50 from Avalon Hill). This service is also extended to our other publications, present and past-ALL-STAR REPLAY and HEROES. Standard Avalon Hill Game Company postage rates of 10% of the amount of the order must be included for domestic orders (20% for Canadian orders and 30% for overseas orders). GENERAL postage coupons may not be applied.

CONTEST #135

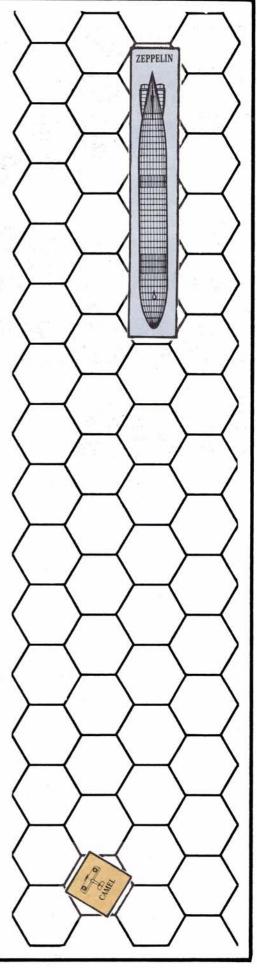
You have emerged, after several minutes of furious cat-and-mouse maneuvering in KNIGHTS OF THE AIR, as an almost certain victor over the despised Zeppelin airship. Just one more hit from your trusty Camel's machineguns and you will send that engine of destruction plummeting to its doom. A glance at the flat needle of the fuel gauge gives warning that your next shot must be sure for you to have time enough for only one more pass. Your objective in Contest #135 is to position the Sopwith Camel in its next move where it has the best chance of inflicting that final hit upon the Zeppelin, thus presenting you with a win. A draw is unacceptable.

There is a hitch, of course. Not only must you make your flight preparation, but you must also complete your move before the Zeppelin moves. This requires some foresight on your part, since your final position in relation to all possible Zeppelin positions must be considered. (An important reminder: the Zeppelin fills three altitude levels with its marker showing just the middle level. This means that you may shoot at the airship from two levels above or below its altitude setting.)

The Zeppelin's nose is in hex 1807, pointing south, at an altitude of 18473 feet. Your Camel's in hex 1717, pointing northwest, at an altitude of 18454 feet. The relative positions of these two crafts are shown in the diagram to the right. Your mission is to shoot down the Zeppelin. Fill in the spaces indicated for flight preparation and write out the maneuvers you plan to use to get into position to do this.



The answer to this contest must be entered on the official entry form (or a facsimile) found on the insert of this issue. Ten winning entries will receive merchandise from The Avalon Hill Game Company. To be valid, an entry must include a numerical rating for this issue as a whole and a listing of the three best articles in the judgment of the contestant. The solution to Contest 135 will appear in Vol. 23, No. 6 and the list of winners in Vol. 24, No. 1 of The GENERAL.



Pbm opponent wantee for TRC. Honor system only. I play Russians. Rated 1200 Area. All letters answered. Please contact: Dudley Kidd, 4611 Governors Dr., #603, Huntsville, AL 35805, (205) 721-1511.

Ftf wanted SL-ASL, 3R, SST, others possible. Experienced 28 year old. Matt Holt, Rt. 1, Box 162-A, Pansey, AL 36370, (205) 899-8615.

ASL playtest group forming in the East Valley area! Any interested player will be enthusiastically welcomed! Pierce Ostrander, 265 N. Gilbert Rd., #2037, Mesa, AZ 85203, (602) 827-7380.

Playtesters wanted for SL scenarios: SL, COI/COD, GI, ASL and DASL levels. Write today to: On All Fronts, P.O. Box 265, Marshall, AR 72650.

SL players wanted for all levels—SL thru ASL. Eight scenarios in our June issue—\$12.95 for year's subscription. On All Fronts, P.O. Box 265, Marshall, AR 72650.

AOC, GOA, PL, PAA, 3R, W&P will pbm or ftf. Long campaign games always finish to the last man. I'll try most any game. I'm on the A.R.E.A./Avg.+. Chris O'Rourke, 831 S. Second St., Apt. B, Alhambra, CA 91801, (818) 308.1715

New in Inland Empire area. 25-year old wants fif in 3R, ASL, TRC, VITP. Will try others. Sean Penn, PSC Box 43, Norton AFB, CA 92409, (714) 885-5052.

Opponent wanted for PL ftf optional and experimental. Rules also VITP, LW, 3R and AOC. Alan Flint, 3724 Brunswick Ct., So. San Francisco, CA 94080, (415) 878-5258.

Newly Area rated 1200 will play a rated or nonrated game of 3R. Pbm or ftf. Mike Burke, P.O. Box 24781, San Jose, CA 95154, (408) 371-8576.

Opinions Wanted—What is the T.Q.E. of a "Standard" Rifle Co. (German, US, etc.) using SL/ASL counters? Tim DuPertuis, 2020 Humboldt St., Santa Rosa, CA 95404, (707) 528-0495.

Pbm teaching opponent wanted for AZ, PAA, TRC and Panzer Command. Also average player wishes pbm Chess opponent. Marcel Carbonneau. 240 Iron Dr., Apt. 17, Vista, CA 92083.

3R players wanted for ftf games of 3R. Interested mainly in multi-player campaign games. All inquiries welcomed. Leonard Krause, 20711 Loyalton Drive, Walnut, CA 91789, (714) 595-7094.

Adult gamer seeks pbm for PL or PB. Will provide quick turnaround. Wish to use honor system. Any Fairfield/New Haven clubs? Paul Anderson, 21 Wesley Dr., Trumbull, CT 06611, (203) 261-9798.

Experienced gamer seeks ftf opponents for UF, MR and DH. Also organizing multi-player TLD. David Neidigh, 102 Boxwood Rd., Middletown, DE 19709, (302) 378-9188.

Fly the Friendly Skies of Nam. All you hot dogs sign for a tour on this Flight Leader Campaign. Jaime Alfaro, PSC Box 1693, APO Miami, FL 34002.

Wanted: oppoennt for NAB, OR and WAT; ftf or pbm. Hollywood FL Area Joe. Joe Delillo, 1521 Golfurew Dr, W. Pembroke Pines, FL 33026, (305) 431-5766).

Area 1500 (Prov) wants rated pbm for PB, TRC and WS&IM. Will ftf many others. All letters answered. Ed Leland, 2475 Spring Road, #N6, Smyrna, GA 30080, (404) 436-7705.

Rommel (Area 1500+AAA) will take on the British challenger in PAA, Area pbm only. Also BB and PL. Jeff Nelson, HC 62, Box 1450, Council, ID 83612, (208) 253-6052.

Average adult gamer looking for friendly ftf play. I have many games; will play most anything. Gary Christensen, 158 Birchwood Rd, Carpentersville, IL 60110, (312) 426-6596.

Experienced, rated pbm player seeks allied opponents (pbm-ftf) TRC, GOA; (ftf) 3R. Send opening set-up. All letters answered promptly. Robert Spontak, 4859 S. Honore, Chicago, IL 60609, (312) 847-2129.

35-year old, (unproven Area rated 1200), beginning to average player seeks "live" adult gamer for: SL, PB, PL, AIW, FR, STAL and DIP, Mr. Leslie Boston, 326 E. Adams, Apt. #1, Havana, IL 62644, (309) 543-2103.

Ftf opponents in Laffayette area, most historical games. Experienced and flexible, will travel. Carl Schwamberger, 3824 S. CO. Rd. 25 E., Lafayette, IN 47905, (317) 474-6718.

OPPONENTS WANTED

Wanted: New Orleans area ASL opponents for fif play. ASL'ers, show yourselves! Craig A. Champagne, 237 Clara Dr., Slidell, LA 70460, 641-3290.

Adult Area (Prov) seeks pbm opponents for TRC, also 3R, (but need a system). Rob Costelloe, 118 Golden Pheasant, Slidell, LA 70461.

DC—Baltimore area players wanted for Origins of World War II. Steven Shore, 8796 Cloudleap Court, #14, Columbia, MD 21045, (301) 992-5482

Veteran SL looking for opponents in the greater Spring Field area for ASL, DASL, SOF and also UF, BANZ. Vic Provost, 54 Ednson Ct., Chicopee, MA 01020, 593-5849.

Real-life dove seeks real-life hawks to shoot down in Area pbm AK, BB*81, TRC, WAT. Age 35, reliable. Steve Harvester, P.O. Box 33, W. Brookfield, MA 01585, (617) 867-3667.

Would like opponent for ASL, SUB or RW at the intermediate or advanced level. Paul Nordquist, 340 First St., #304, Rochester, ME 48063, (313) 652-9023.

Experienced gamer looking for West Michigan area ASL opponents for ftf play. David Stephenson, 2741 Riley, SW, Wyoming, MI 49509, (616) 531-4453.

Must be some gamers in Albert Lea area? Ftf TAC, DD, TRC, PB, BL or will learn yours. Jim Cameron, 308 E. 7th St., Albert Lea, MN 56007, (507) 373-1285.

Opponents wanted in the Twin Cities area for ASL. Daniel R. Schulz, 1229 W. 12th Ave., Shakopee, MN 55379, 445-4163.

Area rated 1500 (Prov) seeks rated pbm; AF, AOC, BIS, FP, LW, SUB, 3R, TR need system; all letters answered. Chandler Braswell, 131 Pemberton Dr., Pearl, MS 39208, (601) 939-4730.

Average adult seeking pbm TRC. Si-movement VITP, 3R (scenarios only). Ftf HW, FT, RF, Rated, unrated welcome. Tom Scarborough, 7517 Oxford, #3H, St. Louis, MO 63105, (314) 727-9829.

SL—ASL opponents sought for ftf in Scottsbluff, NE area. Pbm considered. Rob Webb, 11251/2 L Street, Gering, NE 69341, (308) 436-3358.

Pbm zine publisher and GM 10 years seeks players: CIV with free bonus, KM, beginners game DIP, DIP variant, all pbm. Information 39c. W.E.J. Hinton Jr., 20 Almont St., Nashua, NH 03060.

Jersey Wargamers meet first and third Fridays, first and third Sundays each month. For info; days Bob Wielgus, (717) 991-5135; evenings Bob Hahn, (201) 276-3553. Bob Hahn, 596 Brookside Place, Cranford, NJ 07016.

Adult (24) veteran of SL, COI, COD, GI seeks fit opponent for ASL. Also loves TRC, CAE, FE, and others. Fred Geck, 84 Braeton Way, Freehold, NJ 07728, (201) 462-4493.

Looking for pbm HW and AF if possible. Have played for 3-years. Will answer all letters. Send SASE, please. William Lydich, 9 Emery Drive, Whitehouse Station, NJ 08889

Adult, average gamester seeks opponent for Dune, Wizards, MR, WQ, and other scifi/fantasy games or mystery games. Jane Craig, 99A 3rd St., #2, Brooklyn, NY 11231, (718) 797-1861.

Seek adult pbm players to join AHIKs, pbm MA, and join ftf boardgamer and miniature club. Stuart J. Schoenberger, 430 Ocean Parkway, Suite 30, Brooklyn, NY 11218, (718) 826-2709.

Looking for friendly ftf RF in Buffalo area weekends. John Wood, 72 Jerome Drive, Cheektowaga, NY 14227-2508, (716) 668-2352.

Verified Area 1200+ seeks opponeents. Pbm PB, PL, COI, COD, AIW, will answer all letters. Will accept rated opponents only. Kevin Raznoff, 330 Home St. #2, Elmira, NY 14904, (607) 733-0277.

Want to play multi-player CIV, TT, or DIP by mail? New zine (The King's Court) wants you! Send stamp for pbm systems and more information. Jason Russ, Stonehouse Rd., Somers, NY 10589, (914) 277-8543.

Blind ASL game. Send side choice (Germor or Russian) for information. Sean C. Turner, 110 Noel Ann Ct., Cary, NC 27511, (919) 481-0562. Pbm W&P Campaign Game! Serious players only. Send top three country choices. ASL, AF, NAB, SON, W&P scenarios. Sean C. Turner, 110 Noel Ann Ct., Cary, NC 27511, (919) 481-0562.

Seeking ftf COI thru GI, UF, TB, Dune. Also anxious to learn 3R and ASL. Don't have either game (yet!). Chris Leach, Box 4 Roberson, MHE's, Newport, NC 28570, 223-3960.

Wargame Club meets Friday nights at 6:30. New members wlcome. Falcon Hobbies, 2847 Whipple Ave., N.W., Canton, OH 44708, (216) 477-9904.

Desperate for opponents. Ftf or pbm, rated or non-rated. ASL, RF, 3R, HW, FT, Civil War or your game. Ron Myers, 2740 Lakeside Ave., Canton, OH 44708, (216) 453-7963.

Experienced adult (28) gamer seeking ftf opponents for UF, SL through ASL, FE in Columbus area. David W. Paul, 3434-A Wilson Woods Dr., Columbus, OH 43204, (614) 274-0371

Area 1500 (Prov.) new to pbm seeking opponents: AK, TRC, PB, FE, FR, 3R. Frank Spisak, S.O.C.F. Box 45699, Lucasville, OH 45699.

Adult gamer wants reliable pbm BL opponents. Ftf 3R and CIV in Cleveland area. Am Area rated. WITP anyone? Jack Lanigan, 3567 Gridley Rd., Shaker Hts., OH 44122, (216) 752-0223.

"Gamer's Legion" pbm newsletter plays W&P, HW, MP, BowlBound. Send stamp for more info. Marcus Vogt, 145 Spring Valley Rd., Westerville, OH 43081, (614) 895-2231.

Warriors of the Roses. Boardgames, Monday and Friday nights. Featuring an ASL, AF Campaign game. Many AH game titles played. F. Scott Payne, 7625 S.W. 91st Ave., Portland, OR 97223, (503) 244-0660.

Pbm opponents wanted for ASL. Need to modify SL system for ASL. Beginners welcome. Steve Smith, 20400 S.W. Martinazzi, #69, Tualatin, OR 97062, (503) 692-9335.

Pbm KM; ftf many other games. Tom Bray, 119 S. 7th St., Allentown, PA 18101.

Join Penn-Jersey Gamers. Meet Lower Bucks County-Philadelphia. PA area. All games. Adults only. For info send SASE to: Jim Vroom, 2290 Galloway Rd., A-23, Bensalem, PA 19020.

Any Flight Leaders in Plum, Penn Hills, Monroeville area of Pittsburgh? Teen looking for ftf opponent(s) in basic and advanced game. Vincent Tuite, 246 Perry Street, Pittsburgh, PA 15239.

Looking for pbm systems for SON, DIP also want opponents for ADV GE and DD and other Civil War games. Kevin J. Crawford, 7129 Seaford Rd., Upper Darby, PA 19082, (215) 626-3766.

HDQ 1500+ seeks rated pbm PGG. I have good system for untried units. J. C. Lawson, 1515 Gist St., 4-W-5-13, Columbia, SC 29202.

Average 14-year old seeks teen-age wargamer. Not familiar with pbm but will learn. Will also learn new games. WSIM and FL. Kenneth E. Harker, 3202 Greenleaf Ct., Garland, TX 75042, (214) 495-1144

AIW, LW, PB, PL, TRC and 3R. Mike Parks, 357 Audrey Ln., Houston, TX 77015, (713) 455-5795.

ODESSA Wargaming Assoc. Adult wargamers meet every Tuesday night. Have wide variety of games—can leave games set up. Steve Overton, 620 Belmont, Odessa, TX 79763, (915) 332-2767.

Looking for ftf opponents for ASL have Deluxe ASL system also—can leave games set up. Steve Overton, 620 Belmont, Odessa, TX 79763, (915) 332-2767.

Experienced gamer wants ftf opponents for SL, COI, COD, 3R, BB'81, PL, BR, GE. I am currently unable to travel beyond 50 miles. Mark Merrill, 949 S. Lillian, Apt. #209, Stephenville, TX 76401, (817) 968-2056.

Adult (36) 1200 (Prov) gamer seeks Area rated games in PL, PB, others considered. All letters answered. Any Rio Grande Valley gamers? Kenneth Oates, 316 Hidden Valley Dr., #27, Weslaco, TX 78596, (512) 968-7984.

Non-rated player seeks opponents in pbm of the following: KA, DEV, FP, UF, GSL, and GL—your choice. Kenneth Legg, 413 Algonquin Rd., Hampton, VA 23661, (804) 722-3181.

Veteran gamer wishes to be GM for FT, FL, SUB. Also desires pbm for VITP (using Simultaneous Movement), FE, FP and VG's Vietnam. Jeff Thomason, 2619 NE 4th Street, #112, Renton, WA 98056, 228-0331.

Ftf opponents wanted for fun or blood. 3R, BIS, AF, CAE, AOC, Flight Leader! I want to check out ASL. Will learn anything. Fred Dobrate, 12538 Dayton Ave., N. Seattle, WA 98133 (206) 367-1260.

Look no further for pbm. DIP! "The Handwritten" has openings in regular and spy DIP. For more infor send SASE. Erik Van Rossum, P.O. Box 95155, Seattle, WA 98145-2155, (206) 633-2962.

Fox Valley Gamer's Club meets on the 2nd and 4th Saturday of each month. For information contact: Kerry Watson, 1625 W. Weiland, Appleton, WI 54914, (414) 731-5579.

Wanted: German player for pbm FE. Non-rated consider; myself very good player. Steven Nix, P.O. Box 84, Rhinelander, WI 54501, (715) 362-5416.

"A" Company seeks mature ftf opponents for SL, COI, COD. Smoke gets thick each Wednesday night. Bob Gorden, 7213 Braehille Road, Cheyenne, WY 82009, (307) 637-6027.

Any DIP players interested in a pbm DIP newsletter, plaese write to: Ian Krult, 3963 Oakwood St., Victoria B.C. Canada, U8N-3M9.

22-year old gamer wants pbm system for 3R, SL, COI, COD and GI. Also ftf for any gamers in Borden area. All letters answered. Brent Henry, CFB Borden, Base Supply, Borden, Ontario, Canada LOM 1CO.

Experienced gamer seeks pbm AZ (Gustav Line, Diadem, Shingle), AOC, STAL. Area rated 1350 approx. All letters answered. Any side. Mark Bayliss, "Quenta" 3 Hilltop, Chepston, Gwent, Great Britain NP6 SBT.

Gamers in Germany, where are you? 2LT David M. Cross, HHB 2/28 FA, Box 375, APO NY 09177 or Bleidorn Housing Area, Bldg-5090B0Q Rm. 21, 8800 Ansbach, West Germany.

Does anyone play wargames up here? I will play almost any game, especially ASL, ftf only. It doesn't matter if you're German or American. Mike Smith, HHC, 543rd ASG, Box 513, Bremerhaven, W. Germany, APO NY 09069, (0471) 802155.

Any gamers in the Philippines? Willing to play or learn any game of AH or VG—you name it. All queries answered. Pablo Dulalia III, 136 Santo Domingo St., Quezon City, Philippines 3010, 712-4372.

Any wargamers in Israel? Desperately seeking! COI, RF, 3R, AIW and W&P. Guy Blachman, 39, Galei Tchelet St., Herzlia Pituach, Israel, 46640, (052) 77605.

The "Opponents Wanted" advertisements on this page are intended as a service to the readership of this periodical. Please print or type the ad copy. If the ad is not legible, it will not be printed. Too, no ad dealing with products of other manufacturers will be printed and any mention of such will be excised. Ads are accepted for a single printing only. Should the reader desire that a specific ad enjoy a multiple printing, a separate number of copies equal to the number of times the ad is to be run must be submitted-although only one total payment need be included to cover the printings. Due to the pressure of various deadlines, often advertisements submitted weeks before an issue appears will not be printed in that issue. Please be patient; such will be printed in the immediately following issue. Please do not specify a particular issue for an ad to appear; such requests cannot be honored.

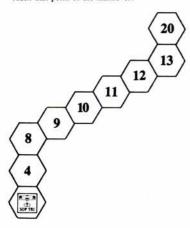
THE QUESTION BOX

KNIGHTS OF THE AIR

Q. Under the Combat Fire section, Rule 4b, it states that a machinegun cannot fire again until the plane has proceeded two Movement Points; Rule 4h states that a pursuer who decides or is required to move one position may fire machineguns (unless already fired from the same position) before starting. What if he fired from the hex just before his current one, thus not having completed the two Movement Points? Is this a

A. Rule 4b predominates. A pilot cannot, under any circumstances, fire his machineguns continuously. There must be a gap of at least one Movement Point where no gunfire occurs between shots.

O. Are any Movement Points expended while performing the diagonal portion of a side-slip? A. Yes, though not by the usual one MP per hex usually followed. In a side-slip, it is possible to move diagonally several hexes at a fractional movement cost. See the example below: a pilot travelling at 50 mph wishes to side-slip diagonally to the right five hexes. He moves froward two hexes, diagonally five hexes and ahead one hex. Since he can't quite move ahead two hexes, the remaining three half-seconds are lost. The numbers indicate the number of half-seconds to reach that point of the maneuver.



Q. There is nothing in the combat rules that states how to attack a non-targeted aircraft. Is this your

attacked, but only in the Final Fire Phase after all movement for the turn has been completed.

Q. If there are still some half-seconds remaining after completing a side-slip, may the re-mainder be converted to additional Movement

A. No; if these remaining half-seconds are insufficient to move another hex, they are lost instead

Q. In Note 6 of Table BL-1 (Wings), if both wing flaps and ailerons are inoperable is a Landing roll on either Table G-9 or Table G-10 modified by "-1" or by "-2"?

Q. For Table BL-3 (Hand-Held Extinguishers), shouldn't the player roll one die on this table,

A. Yes, roll one die

Q. Where can seriously wounded crewmen be placed on the plane to be out of the way, but still have heat and oxygen?

A. One additional man may be placed in the

out of the way?

A. Up to two may be placed in the waist, one in the radio room, one in the pilots' compartment and two in the bomb bay (but only if the bombs are gone).

or dead crewman in a compartment affect further crew casualties?

A. For simplicity's sake, whenever a crew casualty check is called for in a compartment containing an additional man, roll one die: 1-4=original occupant checks for wound;

Q. Are die rolls on Table M-3 by German Ace

A. Yes: yes

O. Are die rolls on Table M-2 (Damage against German Fighter) affected by the German pilot's status (Ace or Green or by the attacking gunner's status (Ace)?

Q. What is the oval-shaped object attached to the bottom of a B-17 under the nose as shown in the article "Operation Rainbow" in this issue?

A. A radio compass which aided in navigation.

A. Not exactly. A non-targeted aircraft can be

Points for other maneuvers that turn?

A. By "-2".

not two dice?

pilots' compartment and in the radio room Q. Where can dead crewmen be placed so to be

O. How does the presence of an extra wounded

5-6=additional man checks.

pilots "+1"; are die rolls on this table by German Green pilots "-1"?

A. No; no.

PANZERKRIEG

\$18.00

Armored Warfare in the Ukraine, 1941-1944

Our second attempt to evaluate this reprint game finally gives a sample base large enough to make some judgments regarding it. These ratings are much in line with those reported for PANZERKRIEG back in Vol. 22, No. 3. In the critical eyes of those who have played it, the game rated below the average RBG values (as reported in Vol. 20, No. 1) in every category. However, its *Overall Rating* (3.34, making it 31st on our ongoing listing) is not abysmal, meaning that many reviewers

found something to admire in the package.

Of some interest is how the values changed between the first rating and this. The ratings in four of the categories-Overall Value, Counters, Player's Aids, and Excitement-fell while those in all the others actually rose. All, however, tend to indicate this to be a mediocre game. However, readers should note that the ratings for Playability and Excitement Level are quite good, well above the norm. Interesting to note, too, is the fact that the ratings for Game Length, both the Shortest and Longest, dropped. It would appear that as players be came familiar with the system, they were able to play a game to completion in a shorter time period. Indeed, if this evaluation is a guide, players have trimmed a halfhour off the average playing time of the

shortest scenario and an hour off the longest, making this a game that can be played to conclusion in an evening or Sunday afternoon, no small advantage in this day of complex and lengthy wargames.

So, if you're looking for a relatively fast-playing game that is exciting and enjoyable, give PANZERKRIEG a try. Certainly not a classic, it will undoubtably have its

Overall Value: 3.34 Components: 4.02 Map: 4.17 Counters: 3.36 Player's Aids: 3.33 Complexity: 4.73 Completeness of Rules: 3.48 Playability: 2.85 Excitement Level: 3.02 Play Balance: 3.61

> Shortest: 1 hr., 58 mins. Longest: 3 hrs., 23 mins.

Year: 1983 Sample Base: 59

Authenticity: 3.27

Game Length

The following games are ranked by their reader-generated overall Value rating. Further aspects of reader response to our titles are indicated by the ratings in other categories. By breaking down a game's ratings into these individual categories, the gamer is able to discern for himself where the title's strengths and weaknesses lie in the qualities he values highly. Readers are reminded that the Game Length categories are measured in multiples of ten minutes (thus, a rating of "18" equates to three hours).

WARG	AME	RBG	;					ame		
Title	Overall Value	Components	Complexity	Completeness of Rules	Playability	Authenticity	Shortest	Longest ame Length	Year	Sample Base
I. ASL	1.67	1.44	10	1.81	2.80	1.98	-	c= 1	1985	133
2. RF	2.00	2.78	5	4.15	2.56	2.36	15.54	89.64	1985	88
3. GI	2.02	1.93	10	3.01	3.38	1.88	12.84	35.33	1982	264
4. COI 5. BV	2.06	1.95	9	3.29	3.13 2.82	1.99	11.61	29.27 39.20	1978 1985	532 95
6. 3R	2.21	2.67	10	3.81	3.40	2.73	25.94	69.24	1981	273
7. COD	2.23	1.97	10	3.12	3.08	1.85	12.15	30.20	1980	224
8. TRC	2.29	2.53	4	2.52	2.12	3.11	17.44	37.74	1976	540
9. SL	2.31	2.09	8	3.48	2.87	2.45	10.17	27.90	1977	680
10. UF	2.42	2.26	4	2.57	1.31	2.84	4.84	13.05	1983	58
11. B-17 12. WS&IM	2.51	2.62 3.04	6	2.52	1.86	2.21	3.30 7.01	11.50	1983	87
12. WS&IM 13. FP	2.57	3.10	4	3.12	2.91	2.87	5.42	34.90 16.81	1975	464 85
14. HW	2.59	3.27	4	3.68	2.13	4.25	8.27	21.73	1984	63
15. W&P	2.61	2,76	5	3.46	2.93	3.04	13.04	57.19	1980	374
16. BB'81	2.67	2.46	4	2.53	2.94	2.91	19.62	35.09	1981	277
17. TLD	2.68	1.95	8	3.72	3.54	2.04	24.44	170.68	1980	119
18. VITP	2.72	2.86	2	2.89	2.22	4.52	16.96	22.36	1977	420
19. CAE 20. SON	2.85	3.01	10	2.32 3.72	2.89 4.09	2.52 1.92	25.14 29.50	32.57 81.78	1976 1981	252 123
21. SOA	2.97	2.79	3	2.73	2.41	3.88	18.22	22.57	1981	232
22. FE	3.00	2.72	7	3.21	3.21	3.00	21.17	49.05	1980	345
23. FRED	3.00	3.41	4	2.93	2.58	2.75	12.25	24.67	1983	58
24. SUB	3.08	2.64	8	3.13	3.08	2.74	9.41	26.15	1978	281
25. CON	3.12	3.64	7	3.08	2.52	3.52	25.8	49.1	1983	73
26. MD	3.13	3.51	7	2.80	2.21	3.44	14.75	20.74	1964	395
27. AZ 28. PL	3.17	2.72	7	3.18	3.86	2.68 3.50	18.63 9.49	63.40 25.80	1978	292 479
29. 1776	3.21	2.97	7	3.09	3.03	3.10	10.16	45.09	1974	373
30. FT	3.23	3.12	10	3.22	3.67	3.16	24.51	57.39	1981	196
31. PK	3.34	4.02	4	3.48	2.85	3.27	11.85	20.34	1983	59
32. PB	3.35	3.08	6	3.73	2.90	3.94	10.35	23.07	1970	448
33. BIS	3.45	2.96	6	3.43	3.25	3.06	12.41	26.35	1979	248
34. AAOC 35. FITW	3.52	2.95 3.14	5	3.02	3.26	3.07	15.52	26.53	1978	239
36. CL	3.54	3.35	5	3.15	3.33	3.79	12.53	25.53	1975	136
37. DL	3.61	4.02	7	3.85	3.22	3.29	6.66	19.94	1981	120
38. GOA	3.66	3.37	5	3.67	3.79	2.98	18.68	60.06	1981	297
39. WAS	3.71	3.67	. 1	2.48	2.37	5.98	9.09	12.71	1976	396
40. GE	3.72	3.12	6	4.64	4.41	2.84	13.25	57.13	1977	248
41. AF 42. AIW	3.74 3.74	4.16 3.05	7 8	3.98 2.92	3.34	3.35	5.61	16.02	1980	192
43. LRT	3.75	3.60	4	3.53	3.39	2.96	8.69 13.04	25.36 17.00	1982	308 56
44. TR	3.80	3.76	3	3.33	3.60	3.70	9.51	25.79	1980	72
45. WAT	3.83	4.17	2	2.95	2.64	5.00	17.08	23.13	1962	296
46. NP	3.87	3.29	3	3.27	2.56	4.89	9.69	14.40	1978	159
47. AK	3.92	4.38	2	3.30	2.48	5.09	14.49	19.13	1964	492
48. AL	4.03	4.05	5	3.69	3.18	3.57	12.34	17.93	1974	217
49. TB 50. RW	4.06	3.53	5	3.48	4.47 2.91	2.50 3.98	4.22	32.50 21.15	1975	304 311
51. JU	4.17	3.20	6	3.61	3.83	3.22	16.01	36.66	1974	193
52. PAA	4.17	4.24	5	3.79	3.99	3.70	15.51	25.24	1981	144
53. DD	4.22	4.07	2	3.04	2.88	4.64	17.54	26.25	1977	367
54. CH	4.39	3.80	4	3.35	3.52	4.67	14.76	24.96	1961	140
55. STAL	4.39	4.29	2	2.88	2.75	5.83	20.57	28.85	1963	320
56. LW	4.45	3.75	5	3.77	3.79	4.79	13.36	34.14	1971	372
57. FR 58. BL	4.79	3.49 4.16	7	3.47	3.75	4.06 5.27	16.27	26.95 41.44	1972 1965	244 336
59. TAC	5.62	5.25	1	2.79	3.23	6.34	11.70	19.29	1961	285
				- "			,,,,,			200



If the response from our readers is a fair indication, our annual look at one of Avalon Hill's older titles brought some pleasant memories in its wake. The issue (Vol. 23, No. 3), featuring SUBMARINE, managed to garner a respectable overall rating (2.93)—on par with other recent issues on new releases. The variant introducing the small boats into the game system topped the list for individual articles, with the new scenarios for British submarines by Mr. Markuss a near second. The ratings for all the articles, based on a random sampling of 200 reader responses with three-two-one points assigned for first-second-third choices, are as follows:

WAR IN THE SHALLOW SEAS	96
THE LONE WOLVES	313
BEYOND VALOR SERIES REPLAY 1	37
KAMPFGRUPPE PEIPER	118
SQUAD LEADER CLINIC	82
AH PHILOSOPHY	59
STALIN'S WAR	50
TOTAL KRIEG	

Among all the hoopla and hype about ORIGINS, another major convention-one marking an impresssive anniversary-has been overlooked. This year, in Madison, Wisconsin on the weekend of June 5-7, the 20th annual DIPCON will be held. Held in the University of Wisconsin's beautiful and spacious Madison Memorial Student Union, it is the premier event for the face-to-face competition among the best in DIPLOMACY players. For those attending, University housing is available, and there is a fee for participating. Transportation (both by bus and by air) from Chicago, about 200 miles southeast of Madison, is reasonable and regular. The tournament itself will consist of five rounds of DIPLOMACY, spread over three days. The annual DIPCON Society meeting will be held on Saturday afternoon during a break between rounds of competition; the site for next year's DIPCON will be decided at the meeting and other matters of importance discussed. For those wishing to see the best in the play of this classic game, or in participating, more information can be obtained from Mark Frueh, 4320 Wallace Street, St. Louis, MO 63116 (314-832-1791).

The Avalon Hill Game Company is looking for playtest volunteers for a computer-assist program for ADVANCED SQUAD LEADER. Interested applicants must have access to both ASL and to an Apple® IIc, IIE or GS, or to an IBM® PC Compatible. Recompense is limited to a free copy of the program. Those interested in volunteering should write to Don Greenwood, c/o The Avalon Hill Game Company.

From the Bay area comes a copy of Headquarters, the monthly newsletter of the fast-growing "Conflict Simulations Society" (CSS). Containing membership lists, "classified" advertisements by members, news of the hobby in Oakland and its environs, and brief articles and reviews on wargames of all types, it is worth a look for those among the readership who may reside in the central region of California. Of particular interest in the latest issue (Vol. 2, No. 3) was an account of four playings of the Zeppelin solitaire scenario in Avalon Hill's KNIGHTS OF THE AIR. According to their newsletter, the club offers friendly competition in boardgames and miniatures, guest speakers, raffles and more. For those in the Oakland-Eastbay-Diablo Valley area who may be interested, more information can be obtained from Mike Wilson (415-228-0764) or Robert Vicent (415-439-1376).

Infiltrator's Report

Seems that The Avalon Hill Game Company's computer version of DIPLOMACY is at last gaining some respect among the hardcore players and GameMasters of that classic game. In the most recent issue of the hobby flagship 'zine, Diplomacy World (#46), author and GM Ken Hill takes a long look at the computer game and its usefulness for novice players, experienced players and especially for GameMasters. Highlighting the strengths of the computer version, he shows how it can be a boon to the busy GM, allowing them to oversee up to 30 games at a time, more than enough for even the most prolific among the breed. And he explores what computer play can teach the player, be he new to the hobby or an old hand. Complementing its graphics and "bug-free" 256K program, he concludes that it is worth many times its purchase price for the active DIPLOMACY hobbyist. A copy of Diplomacy World #46 may be had from The Institute for Diplomatic Studies (P.O. Box 8416, San Diego, CA 92102) for \$4.00. Computer DIPLO-MACY is available on the IBM PC (please specify cassette or diskette if ordering) for \$50.00 from The Avalon Hill Game Company (please add usual shipping and handling fees).

If you'd care to see the kind of gaming 'zine the growing Australian hobby puts out, check out Rick Snell's *The Go Between*. It features editorials on hobby matters, news of the Australian hobby scene and conventions, ratings lists, articles, reports of several ongoing *DIPLOMACY* games, puzzles and contests of various sorts—all with a healthy sprinkling of news about the science fiction genre. The graphics and cartoons are quite professional, and it is as good as any amateur 'zine produced anywhere in our broad hobby. Send \$2.00 for a sample to *The Go Between* (Box 286C, Hobart 7001, Tasmania, Australia) if you are interested in seeing what the gamers "down under" are doing.

Even with such a tricky situation, response to Contest 133 was outstanding. However, with the number of possible moves by the Japanese submarine so large, it was inevitable that many would miss the submarine with their depth charge patterns. Congratulations are due to all who tried their hand at the cat-and-mouse game that SUB-MARINE can be Surprisingly, six entrants managed to place one or more DC/DCK on the submarine and within 25 feet. The following readers will receive merchandise credits from The Avalon Hill Game Company: Frank Calcagno, Billings MT; Kenneth Kloby, Hackensack NJ; Russell McKinney, Rockford IL; Roger Meier, Jeffeson City MO; Nick Minford, Grand Forks AFB: Ernest Stepan, London, Ontario.

Contest 134 posed a strategic problem for the aspiring Napoleon in our grand game, *EMPIRES IN ARMS*. Strategically, the entire Grande Armee should be moved to *Linz* to fight th Austrians. Remembering that a *decisive* Napoleonic "thunderclap" is needed, the reasons for choosing this maneuver are as follows:

NORTHERN STRATEGIC OPTIONS: An immediate advance on Kustrin could not be supplied; foraging losses would average one to two for the cavalry corps and two to three SP per infantry corps. With the strength of the hostile coalition, France should probably not gratuitously throw away this much strength. An October advance of the main

body to Berlin while detaching a corps to the area west of Berlin and another corps to Magdeburg and building a depot in the area north of Hanover would permit the building of depots west of Berlin and at Magdeburg in November. This could accompany a first-moving November advance to Kustrin, but yields only one immediate battle versus Kutusov's army (with three Russian and three Prussian corps, Kutusov is the obvious pick to command) in their woodland position. A defeated Kutusov could retreat east in the second half of November, linking up with Bennigsen and sitting beyond the range of French supplies. Besides, the linkup of Kutusov's Russians with the Prussian army in the first half of October and the corps composition and last-known Prussian strength (six cavalry SP) of this combined force give the French little hope of any cavalry superiority in a battle at Kustrin. These maneuvers would have a decent chance of capturing Berlin, but Berlin is the least important enemy capital since Prussia produces the least income. Also, while the Grand Armee went north, the Austrians would probably have a free hand to recapture Tyrol and Venetia and to threaten the rest of

SOUTHERN STRATEGIC OPTIONS: An advance to Linz can easily be fully supplied from the Salzburg and (build in October) Venice depots. Since Linz can be reached immediately, two battles can be fought back-to-back against the Austrians by following up a likely October success at Linz with a first-move November march on Vienna (since there is an Austrian depot in Vienna, this is where the Austrian army at Linz must retreat); a French depot could be built at Linz for easy supply of the November attack. Although a Linz battle, as with one at Kustrin, would be fought in wooded terrain, a followup battle at Vienna would be in the open. The corps composition of Charles' army indicates that the French will either have cavalry superiority (the Austrians will have ten or less cavalry SP) or, if the Austrian array includes a Grenadier and a Light Infantry corps and all possible cavalry, a pleasingly large numerical superiority. Twin French victories (or even "draws" that caused heavy Austrian losses and forced Austrian "end of day" withdrawals) at Linz and Vienna, followed by the possible capture of Vienna (a more important capital than Berlin), could conceivably cause an Austrian surrender and start the breakup of the coalition. At the very least, any degree of success in these maneuvers would greatly weaken the coalition's frontline strength. Although a southern advance would leave the allies at Kustrin unopposed, their currant position is so far east that they could not make much immediate trouble up north and could be ignored for a few months.

FIELD COMBAT: Now we come too the part you've all be waiting for, this contest's tie-breaker. What chit should the French player choose for the attack at Linz? Being no dummies, we realize that any pick can be countered by an opposing pick, so this must be a bit of an intuitive "educated guess" that can be argued over until Doomsday, or we can bore all concerned by grinding through probability formulas to "prove" that one pick is statistically superior to another. Rather than go through all that, we chose to use an empirical method, so our funloving editor (twice voted the "least logical man in America") was liquored up and talked into making a pick for the Austrians. He picked "Defend" as he felt that there was a good chance that the French would "Assault" (or, maybe even "Escalated Assault") to reduce the chances of an Austrian withdrawal. Then our panel of experts was released from their padded cells, told of this choice and finally calmed down enough to reach a consensus opinion that the best French pick against "Defend" was "Outflank". So, without fear or favoritism, we confidently maintain that the answer is Outflank.

^{*} Trademarks of Apple Computers and International Business Machines.

THE FIEROES

HEROES magazine, the magazine of Avalon Hill Role Playing, is setting out anew to bring the excitement and adventure of Role Playing and other thrilling forms of gaming into your home. Gauged to thrill, calculated to enthrall, the new HEROES continues in the hunt to become your Role Playing magazine.

Retaining the best of the old, the new HEROES strikes out into new fields to provide more information and more excitement. With the fine regular features below, HEROES will be your magazine. Give it a try today.

***COMPUTER CORNER—A regular feature highlighting the finest of the new, old and projected products by Avalon Hill's Microcomputer Games.

***COMIC FLOW GAMES—Exciting graphic adventures where you are the hero, and you see everything as he does. The story is told through pictures with just enough words to make it interesting.

torial features providing accurate, detailed information about important historical and mythological concepts, places, etc., in a way that does not tie the information to any specific game system. Just one of the new general information and feedback features that will play an important part in the New Heroes.

***Too much more to mention here, if your buying, your mind will be flying!

I'LL GIVE HEROES A TRY FOR:

□ 1 YEAR—\$12.00 ★ New ☐ 2 YEARS—\$18.00

* Renewal

Name:

Address: _____ Apt.#: __

City: _____ State: ____ Zip: _

Please Indicate Method of Payment:

☐ Check ☐ Money Order ☐ Charge

☐ American Exp. ☐ MasterCard ☐ Visa ☐ Choice

Acct.#: _____ Exp. Date: _____

Signature: _

Please send Subscription Form and Payment to:

The Avalon Hill Game Company 4517 Harford Rd., Baltimore, MD 21214 CALL TOLL FREE:

1-800-638-9292

THE STATE OF THE S KNIGHTS OF THE AIR \$35.00 Authentic Re-creation of World War he n I Aerial Warfare 0 which lives in INSTRUCTIONS: Rate each category by placing a number ranging from 1 through 9 in the appropriate space to the right (1 equating "excellent"; 5, "average"; 9, "terrible"). EXCEPTION: Rate items 7a and 7b in terms of minutes necessary to play the game, in ten-minute ncrements. (Example: If you've found it takes two and a half hours to play the basic scenario of FRANCE 1940, enter "15" for category 7a.) For an explanation of the categories, refer to the AH Philosophy of Vol. 19, No. 4. Sub-categories are indicated by italics. Enter ratings only for those categories relevant to the game in question. Note that AH's ratings for Complexity and Year of Publishing have been provided; do not rate these categories. 1. Overall Value 2. Components 2a. Mapboard 2b. Counters 2c. Player's Aids 3. Complexity 3a. Complexity Completeness of Rules 4. Playability Excitement Level 5b. Play Balance 6. Authenticity 7. Game Length Basic/Shortest 7a Advanced/Longest 1987 Year of Publication 50¢ **Opponent Wanted** 1. Want-ads will be accepted only when printed on this form or a facsimile and must be accompanied by a 50c token fee. No refunds. Payment may be made in uncancelled U.S. postage stamps. For Sale, Trade, or Wanted To Buy ads will not be accepted. No refunds. Insert copy on lines provided (25 words maximum) and print name, address, and phone number on the appropriate lines. Please PRINT. If your ad is illegible, it will not be printed. So that as many ads as possible can be printed within our limited space, we request that you use official state and game abbreviations. Don't list your entire collection, list only those you are most interested in locating opponents for. Advanced Square Leader—ASL, Afrika Korps—AK, Air Force—AF, Anzio—AZ, Arab-Israeli Wars—AIW, Banzai—BANZ, Beyond Valor—BV, Bismarck—BS, Blitzkrieg—BL, Britannia—BRIT, Battle Of The Bulge—BB, Bull Run—BR, Caesar Alesia—CAE, Circus Maximus—CM, Civilization—CIV, Dauntless-DL, D-Day-DD, Devil's Den-DEV, Diplomacy-DIP, Empires in Arms-EIA, Firepower—FP, Flat Top—FT, Flight Leader—FL, Fortress Europa—FE, Freedom in the Galaxy—FITG, Gettysburg—GE, Gladiator—GL, Guns Of August—GOA, Gunslinger—GSL, Hitler's War— HW, Kingmaker-KM, Knights of the Air-KOTA, The Longest Day-TLD, Luftwaffe-LW, Magic Realm—MR, Midway—MD, Napoleon—NP, Naval War—NW, PanzerArmee Afrika—PAA, Panzerblitz—PB, PanzerGruppe Guderian—PGG, Panzerkrieg—PK, Panzer Leader—PL, Paratrooper—PARA, Rail Baron—RB, Richthofen's War—RW, The Russian Campaign—TRC, Russian Front—RF, Streets of Fire—SOF, Squad Leader—SL, Stalingrad—STAL, Storm Over Arnhem—SOA, Submarine—SUB, Tactics II—TAC, Third Reich—3R, Titan—TT, Up Front—UF, Victory In The Pacific—VITP, War and Peace-W&P, War At Sea-WAS, Waterloo-WAT, Wooden Ships & Iron Men-WSIM.

PHONE

STATE ___ ZIP

ADDRESS

WHAT HAVE YOU BEEN PLAYING?

Top ten lists are seemingly always in vogue these days. Whether the subject is books on the Best Seller List, television's Nielsen ratings, or even games, the public never seems to tire of seeing how their individual favorites stack up numerically against the competition. Our preoccupation with this national pastime is almost akin to rooting the home team on to victory every Sunday. So to further cater to your whims (and to satisfy our own curiosity) we unveil The GENERAL's version of the gamer's TOP TEN.

We won't ask you to objectively rate any game. That sort of thing is already done in these pages and elsewhere. Instead, we ask that you merely list the three (or less) games which you've spent the most time with *since* you received your last issue of The *GENERAL*. With this we can generate a consensus list of what's being bought. The degree of correlation between the Best Selling Lists and the Most Played List should prove interesting.

Feel free to list any game regardless of manufacturer. There will be a built-in bias to the survey because you all play our games to some extent but it should be no more prevalent than similar projects undertaken by other magazines with a special interest-based circulation. The amount to which this bias affects the final outcome will be left to the individual's discretion.

The games I've spent the most time playing during the past two months are:

_		

CONTEST 135

Camel:	Stick	Engine	Power	Speed	Speed	Altitude
At Start	0	5	5	90	90	18454
Preparation	1					
Adjustment	s					
Maneuver			Num	ber of He	xes	
1.						
2.						
3.						
24.7						
4.						
5.						
5.						
	le (Rate f	rom 1 to 10,	with I equation	ng excellent, l	0 equating to	rrible)
est 3 Articles						
AME						
DDRESS _						



"Viet Nam as it really was"

—Time Magazine, January 26

"May be the most important movie of the year"-USA Today, January 2

"Winner of the Academy Award as best movie of the year"

Now an Avalon Hill board game, faithfully portraying what Oliver Stone's film says Viet Nam was all about. Yet another design masterpiece by Avalon Hill's Craig Taylor, **PLATOON** is a game of survival. The playing pieces represent each of the main characters of the film. An "entry level" game, **PLATOON** will appeal to a wide audience of historians and Viet Nam veterans who will appreciate the extreme accuracy of the game.



See **PLATOON** at your favorite game store
... along with brand new titles such as...









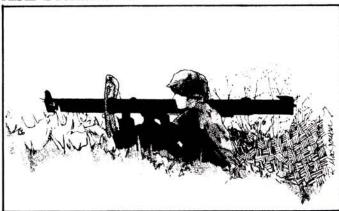


The Avalon Hill Game Company

HUBE'S POCKET

ASL Scenario G





VICTORY CONDITIONS: The Germans win immediately upon exiting at least ten vehicles in either ONE or TWO Convoys off the west edge.

SOUTHERN RUSSIAN NEAR BUCHACH, April 6, 1944: The March Russian offensive to drive the Germans back to the Carpathian Mountains had been successful. Partially due to Hitler's "stand fast" order, many large German formations were encircled. Among them was the entire First Panzer Army of General Hube. Determined not to be part of another Stalingrad debacle, Hube and Manstein planned a daring breakout. Avoiding the favorable terrain to the south, Hube drove west across forested hills. The terrain was more difficult, and hence was less likely to be the move the Russians would be expecting. Elements of the elite 2nd SS Panzer Corps would drive eastward to aid in the breakout with a linkup expected in the vicinity of Buchach.

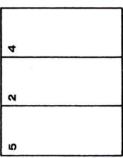
BOARD CONFIGURATION:

Å N

BALANCE:

10-2 armor leader.

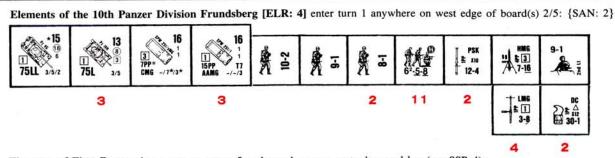
- # Increase the number of SS squads to 12 and replace the 9-1 German armor leader with a
- ★ Decrease the number of SS squads to 9 and remove the German 10-2 Infantry leader.



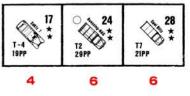
TURN RECORD CHART

***** GERMAN Moves First [172]

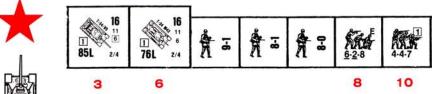
★ [202] ***1 *1 *2 3 4**END ***5 6 7 8 9 10**restart on turn 11 (1)



Elements of First Panzer Army enter on turn 5 or later along any east edge road hex (see SSR 4):



Advance elements of 5th Tank Corps [ELR: 3] enter turn 1 anywhere along north edge of board 4: {SAN: 2}



SPECIAL RULES:

- 1. EC are Moderate with no Wind at start.
- The German HS (see German Vehicle Note 58) is SS. German crews, while inherently in an AFV, have a ML of 9.
- German forces may not enter any hex of board 4 (wholly or partially) on turn 1.
- 4. All vehicles of First Panzer Army enter using Convoy rules (E11.).

AFTERMATH: The westward thrust caught Zhukov by surprise and he desperately threw anything available in the way of Hube's panzers. His last blocking force, a gaggle from the 1st Tank Army, was pushed aside by the 10th SS Panzer Division Frundsberg—now little more than a kampfgruppe. Hube, with his 200,000 men, was able to pull out and escape the trap . . . this time.

THE PAW OF THE TIGER



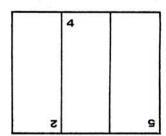
ASL Scenario F



VICTORY CONDITIONS: The Russians win immediately by exiting one AFV with functioning MA off the west edge of board 2, provided there are no Mobile German tanks left on board 2 during the Player Turn in which the Russian tank exits; OR by exiting seven AFV with functioning MA off the west edge of board 2.

SOUTH OF LENINGRAD, January 12, 1943: Throughout the winter of '42the Soviets launched repeated attacks to relieve the siege of Leningrad. The hardpressed Germans rebuffed one attack after another, but in so doing, their lines became progressively thinner. Finally, the Germans had to develop a trip wire defense of light local forces, backed by a "fire brigade" mobile force, which was quickly dispatched to the inevitable breakthrough sector. Such a fire brigade was 1st Company, s. Panzer Battalion 502, with ace tanker Cpt. Hans Bolter, who was called upon to halt a major Russian armored incursion by a full battalion of the 122nd Tank Brigade.

BOARD CONFIGURATION:



BALANCE:

- # Increase number of Russian AFV exiting to 2 and 8.
- ★ Decrease number of Russian AFV exiting to 0 and 6.

TURN RECORD CHART

RUSSIAN Sets Up First offboard 5 8 b **END** RUSSIAN Moves First



Elements of 122nd Tank Brigade set up offboard according to SSR 3:













3





3









SPECIAL RULES:

1. No Wind at start; Ground Snow rules are in effect (E3.72). All units, including AFV of both sides, have Winter Camouflage (E3.712).

- 2. The German radio represents one battery of 150mm OBA
- 3. The Russian sets up first, offboard of the east edge of board 5, along offboard hexrows Y/Q/I (as explained in A2.51). When they enter on turn 1, they do so via hex(es) I10/Q10/Y10.

AFTERMATH: The Tigers and their Pz III escort arrived just in time to bolster the feeble infantry positions. Though heavily outnumbered, the combination of Tiger superiority and Bolter's superb gunnery carried the day, and the backbone of the Russian 122nd Tank Brigade was shattered.