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Designer's Notes

Normally, this column will cover the latest developments in game design and development at (primarily) Simulations Publications, Since designing games is one of our major activities the news ought always to be interesting. But in this, the first issue of MOVES, we will also dwell upon what goes into MOVES and why. This will continually take a portion of each issue, but not to such a large extent as in this issue.

The purpose of MOVES is best explained in its subtitle: Conflict Simulation Theory And Techniques". About half of the material in MOVES will come from SPI staff. In other words, professional game designers. The rest of the material will come from you, our readers. All of you are game players and many also design games. Although SPI designs all of its own games (it doesn't make much sense to pay all that salary for people to design games and then pay out royalties for someone else's games), we must keep an eye out for new ideas from

other people. Thus MOVES will provide a forum for game design ideas from all directions. MOVES will also provide a forum for discussion of the games themselves. Some of these articles will come from the SPI staff. but most will come from where most of the games are played: the readers of MOVES.

As in S&T, we will use a feedback card to obtain a constant stream of information from the readers of MOVES. Using this data as a base, we will institute editorial changes in the magazine. All feedback results will be published. Initially our articles will cover the following areas:

News & Information: Primarily through the Designer's Notes column, but we will attempt to develop other "types" of articles in which to present this sort of information.

Game Development Reports: Articles by game designers on what problems (of particular interest) they encountered in designing the game.

Game Errata Reports: The latest changes and corrections for existing games (that haven't already been incorporated into subsequent editions).

Game Notes: Comments by the development and playtest groups for particular games, mainly regarding the play of the games. This also includes regular articles on DIPLOMACY and other games.

Game Design Proposals: Articles suggesting new approaches and techniques in game design, usually by game designers, but often by game players also.

History: Short history articles providing general information in concise format.

Topical Book Reviews: Reviews of groups of books covering the same subject, comparing the volumes with each other and the group as a whole

Game Reviews: Similar to the game reviews published in *S&T*.

This list will get longer, and will change constantly. How long it gets and how much it changes is up to you. Send in your feedback cards. Even better, send in letters explaining in more detail how you fee about *MOVES*. It's your magazine.

Editorial Policy

Among other things, *Moves* is intended to be a forum for those who play conflict-simulation

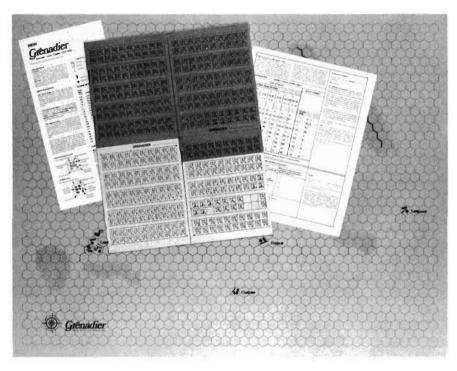
game. That means that we not only solicit articles from our subscribers, we also go out of our way to see that as many of these articles as possible are published. If you have an idea, comment or coherent thought...if you are capable of putting one word in front of another in a comprehensible manner...if you can do these two things, then you can probably write an article for *Moves* and get it published.

We look for articles that deal with gaming theory, design and technique. Any article you see in *Moves* could be used as a model for an article you could write. If you are unsure of your potential subject or treatment then write

us, and we'll try to help you out. You don't have to be a professional writer to write for *Moves*. All you need is a certain degree of literacy and, of course, an interest in conflict-simulation games.

We don't pay much for contributions to Moves...but then you shouldn't be thinking in terms of money when writing for the magazine. What we do, of course, is see that your ideas are presented as ideally as possible in print. So, let the articles in Moves be your guide, and give it a try.

Gtenadier (Tactical Game 10:1680-1850)



GRENADIER is a company/squadron/ battery scale game of warfare during the age of "cannon and musket" This, the 170-year period from 1680 to 1850, covers the battles of such notable military commanders as Marlborough, Saxe, Frederick the Great, Napoleon and Wellington. Sixteen battles are covered in the game, including Jena (1806), (1805), Salamanca (1812), Marengo (1800), The Pyramids (1798), Leuthen (1757), Fontenoy (1745), Blenheim (1704) and Waterloo (1815). Because of the scale of the game the battles are not covered in their entirety. Rather, small, crucial sectors of the battles are represented. For example, the battle of Jena is represented by the attack of Ney's V Corps vanguard (thirty companies of infantry, ten squadrons of light cavalry and two batteries of four pounder artillery) on the Saxon contingent of the Prussian army (30 companies of infantry, 20 squadrons of cavalry and one battery of 10 pounder artillery). The battle of Marengo is represented by the

Rescue of the French 9th Light Infantry The battle of Leuthen is illustrated by the attack of the Prussian van on the Austrian left flank. The battle of Fontenoy is represented by the attack upon the British positions by the Irish Brigade and the Regiment Normandie.

In the game, each hexagon equals 50 meters, and each Game-Turn represents some six minutes of real time. The infantry and cavalry units each represent some 140 or so men. The artillery units represent a battery of four ours. The smallest maneuver formation was the company/squadron/battery, thus, on this scale, all of the tactics of the period became immediately obvious and practical to re-create. A special rule is used to simulate the lack of a cadenced step (which made deployment extremely slow and deliberate) before 1740. The combat resolution system uses one odds-table which is set up so that it can be employed to reflect the use of musketry, shot and cannister at various

ranges. Shock action is also included. Because of the scale of the game, the ranges of all weapons are included. Special rules are used to re-create the different formations and tactics employed during the period. Leadership is also provided for with the use of headquarters. Four hundred counters are included with the game. These include the following types of troops found in the period covered, Line Infantry (French Napoleonic), Conscript Infantry (French Napoleonic), Grenadiers, Skirmishers (special rules allow you to convert most infantry units to this form), Improved Infantry (British, for example), Prussian Infantry, Regular Infantry, Light Infantry, Militia Infantry, Light Cavalry, Heavy Cavalry, Dragoons, Artillerymen, Artillert Transport, 4-pounder guns, 6-pounder guns, 8-pounder guns, 10-pounder guns, and 12-pounder

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Game Design: A Debate on the Rommel Syndrome'

The following article, or group of articles, was first commissioned many moons ago (about 20, to be exact) for Strategy & Tactics magazine. Before it could be finished, the editorial policies of S&T changed and left the article out in the cold. We planned to get it into the old Game Design or S&T Supplement. But these publications ceased publication before this could be done. Now we have MOVES magazine, which seems a natural for this sort of article. And here it is,

The Rommel Syndrome is a "round-robin" article, with the central argument presented by Steve Patrick, who has designed one published game, Dark Ages, and contributed to the design of another, Strategy I. All of the authors of the responding articles also have some design experience. Lou Zocchi has designed Battle of Britain, Flying Tigers, and Luftwaffe. Dave Williams has designed Anzio. Flight of the Goeben, (S&T, no. 21), Battle of Moscow (S&T. no. 24) and Anzio Beachhead (S&T, no. 20), John Young has designed Phalanx, and contributed to the design of Strategy I.. He is also a key member of the SPI design staff. He writes most of the rules for the SPI games. Al Nofi has designed Tactical Game 14 (S&T, no. 22), and Centurion (S&T,

no. 25), as well as doing much of the research for many of the SPI games. Bob Champer, although he has no published games to his credit, is a key member of the SPI design staff. He has done considerable work on most of the SPI games, primarily in the debugging and testing area. Redmond A. Simonsen has contributed to the design of Strategy I and Panzerblitz. In addition, he has designed the components and framed the rules for almost all of our games, which in itself is a major contribution to each of these games. The author of the "Afterword", James F. Dunnigan, is the only author to have seen everyone elses' comments before writing his own (everyone else was only shown Steve Patrick's article before writing their own). Jim Dunnigan has the following published games to his credit: Deployment, Leipzig, Napoleon at Waterloo, 1914, 1918, Tannenburg, Jutland, Battle for France: 1940 (S&T, no.27), Crete (S&T, no. 18), Barbarossa, Lost Battles (S&T, no. 28), Panzerblitz, Kursk, Tactical Game 3, Combat Command (S&T, no.30), Normandy, Flying Fortress, Bastogne (S&T, no.20), USN (S&T, no.29), Korea, Battle of Stalingrad, Grenadier, Origins of World War II, Strategy I, The Next President, and Up Against The Wall, Motherfucker

ARGUMENT: Patrick

THE ROMMEL SYNDROME or Wargames as a snare and delusion by Stephen B. Patrick

There is a notion which exists in the hobby of wargaming. Though not often verbalized, it exists nonetheless. This notion is in two forms and, in its most dogmatic terms, may be stated as follows: 1) a person who plays war games is essentially undergoing all of the rigors of a real commander, less the horror of war, and, 2) a person adept at war games will be adept at war. These two forms are the Rommel Syndrome: the delusion that each wargamer can become his own Rommel and lead his troops to victory.

Before someone points out that these two theses are based on false premises, which is granted, and contends that no one seriously believes them, the evidence indicates that some do seriously believe this. For example, the idea that "now you command the forces in the battle of them to victory" has been a hallmark of Avalon Hill advertising from the start. As recently as PanzerBlitz one finds on the box cover "The game of PanzerBlitz enables you to recreate the drama and furious action of tactical level armored warfare," And "... each of which allows you to exercise your skill as an armor tactician." Now one of two conclusions can be drawn from the presence of this

REBUTTALS:

Young

THE ROMMEL SYNDROME an exercise in self-delusion by John M. Young

The greatest sales of a single title that Avalon Hill has ever had is about 60,000. Therefore we may assume that there are roughly that number of people who are, or were, interested in wargames. Even if merely half of these people retain an interest, there would still be a minimum of 30,000 people in wargaming as a hobby.

Now Patrick is worried about the people who are deluding themselves, and being guite vocal about their delusions, concerning the nature, impact and direction of hobby war games. These are the people you find talking to themselves in the fanzines of a few hundred circulation, or the minority of Avalon Hill General's subscribers (about 4500). At most, the number of the fanatics is a few hundred.

Patrick's second indication is the advertising copy of Avalon Hill, and how it is pitched. He infers from this tone that many people believe it. That's silly-we have all lived in the advertising Age, and have a coated mental surface off which the half-truths of promotion ooze. Childish Avalon Hill ad copy

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Nofi

Some Thoughts on The Rommel Syndrome by Albert A. Nofi

One must wonder what Patrick meant when he states, at the beginning of his commentary, "that there exists delusion that each wargamer can become his own Rommel..." Is there anyone who seriously believes that that is all there is to it? Certainly, the plethora of variations of rules, largely designed to add more "realism" to the games, stands as evidence against any belief that wargames accurately represent warfare. Patrick seems to be talking about something which largely does not exist. His entire statement is directed towards the idea that wargames are not war. Fine. No one seriously disputes this. We may all agree that the innumerable little items of staff work left out of virtually all wargames would, if included, greatly increase the accuracy of the representation of war. But to what purpose?

The impression one gets in the Patrick has emphasized the word "war" at the expense of the word "game". It might be better if he did precisely the reverse.

Having designed two wargames which achieved some popularity, I find that if one attempted

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Champer

"The State of the Art", and Other **Inconsequential Developments** by Robert Champer

Patrick's essay appears to admonish game -players for assuming they are getting a touch of the real thing, without all the blood and pain. Patrick "reveals" that, in actuality, the problems faced by game-players are a far cry from those faced by legitimate field commanders (such as the immortal "Desert Fox", who died of cyanide poisoning... so it goes). Having never experienced the real thing (nor will I ever), I am in a rather poor position to dispute "Fighting" Steve Patrick's claim. However, I am in a position to comment on Patrick's pessimistic views on the field of Simulation-Games, and perhaps I may be able to convey some insight and understanding as to why the difference exists between simulated death and the "real McCoy".

Firstly, we should realize that the games SPI publish at present require a different set of skills than the skills required to be proficient in real war (or murder, if you will). Using a child's definition of the word simulation (copy), we may safely assume that these sets of skills should be identical. But (and are there not always buts?), they must also be games,

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hyperbole, Either Avalon Hill and others using this technique are naive and nobody really believes that one can exercise one's skill as an "armor tactician" in a game (which naivete is not impossible based on other notions from Avalon Hill). Or, Avalon Hill is right, this is a good selling point and people really believe it and are drawn to the games, in part, because they are victims of the Rommel Syndrome in one form or another. There is no way of analyzing the sales of games to see what sold the player on a given game, particularly whether this element was part of the incentive to buy. But extrinsic evidence gives credence to this thesis that the Rommel Syndrome is alive and well in the minds of more than a small element of the hobby. First, the club zines and other fan zine-type publications. both in their game plan articles and elsewhere, seem to have this thread in common in many places. Second, the language of the Opponents Wanted columns in many of the zines, particularly in the General before the format change for that column, gives credence to the thesis. Third, though probably at a reduced level in comparison to the other examples, is the stronghold on the hobby of games dealing with World War II, in Europe, on land, and particularly with the Germans involved. While it is certainly true that this attraction is in part due to the fact that World War II in Europe was a recent, dramatic war which some of the players have lived through, and others have parents and other relatives who can make it seem more immediate than say, the American Revolution, this is not the only answer. There remains the lure of having the historical losing side win the game, which leads us back to the Rommel Syndrome.

Partly the problem arises from the fact that wargames have been used, both as a term and as an idea, for quite some time in the armies of the world, either as maneuvers, command post exercises, map exercises or sand table exercises. And they have been used for the specific purpose of duplicating battlefield problems in order to train leaders or to predict the outcome of certain planned military operations. But the scope and purpose of wargames. as used in the military, is widely different from that in wargames as a hobby, and the difference may not be apparent to those who have not had a chance to see the military version at close hand. Armed with this knowledge of the military use of wargames, the victim of the Syndrome falls further into his delusion.

In part the problem in recognizing the difference between military war games and hobby war games lies at the base of the whole gap which feeds this Syndrome. Unless one has the data, one cannot properly assess the situation. While some can gain a vicarious knowledge of reality in a given field (in this case the military) by reading and asking questions, more often than not it is the person with first hand or very close second hand experience (via a brother or the like) who can grasp the problem. For example, unless brought home to a person without military experience, the wear of drive sprokets on tanks as a factor effecting armored mobility is not even considered. Yet, it is crucial in war time. Whether to stop and refit or press on to the victory over the next hill was a decision faced many times in World War II.

Wargames, both board and miniatures, emphasize operations, which are certainly the most dramatic part of warfare. Intelligence play is usually nil; personnel problems are handled in most basic terms (units arriving as replacements are usually considered as strong and effective as hardened troops); logistics, particularly in Avalon Hill's first wave of games, were laughable. Admittedly now there is more attention being paid by designers to these facets than before. But, in essence, only operations gives a player a reasonable chance to grasp the problems faced in reality.

The separation of game from reality is due to the necessities of game design. While in war a commander, with his staff, would be concerned with personnel, intelligence, operations and logistics, and would worry about fuel and morale problems, a single wargamer would be able to do so only by converting the game into a paper drill of keeping statistics which, in the end, is only a test of endurance, not of skill (and while endurance is an important factor in war, it has limited value in games). The game designer worth his salt recognizes this and designs his game accordingly. The matter of three hundred "Dear John" letters and their impact on morale is thrown in the hopper with a myriad of other factors to come out as a combat strength or something like that. The designer had to trim it out as an independent factor in its own right in order to avoid chaotic rules. It's there, but hidden, Still as far as the player is concerned, the impact may appear to be little different from merely assigning an arbitrary combat factor without considering anything. One suspects that many of the first wave of games did exactly that.

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Zocchi

ARE YOU REALLY AS GOOD AS ROMMEL? By Lou Zocchi

While I found myself agreeing with about 98% of what Mr. Patrick had to say about in *The Rommel Syndrome*, there are a few small areas which I feel deserve more explanation, or some rebuttal.

Mr. Patrick says that wargame designers seem to ignore the fact that "a battle is the sum of all that has gone before it". This is handled in a unique manner for gaming purposes. On the surface, a game like Gettysburg or Waterloo appears to be a set-piece because a pre-designated number of troops always enter on the same road at the same time in each battle. The net effect of these entries, and the continuity of continuous battle, causes the players to forget that the action they are refighting is not a one-day battle, but a series of engagements over a three-day period. What is not immediately obvious is that what you lose on the first day of game No. 1 might well survive the first day's fighting in game No. 2 and thereby bring about the "sum of all that has gone before it". Since the games do not require the players to disengage after nightfall, they are seldom aware of the passage of time

Williams

Rommel Syndrome by Dave Williams

The highly articulate Mr. Patrick has fallen, I am afraid, into several logical traps. Once trapped, he seems to have trouble coping with his own thesis, that wargames aren't real tests of military skill. I ask him, "Who cares?" I, for one, have not deluded myself. His fallacies are:

I. The "Wargames are Accurate" Fallacy. In fact, he pursues this to the extreme, and even mentions the "Avalon Hill Games are Accurate" Fallacy.

2. The "Historical Simulation" Fallacy. This claims that all the original elements of a gaming simulation must be present for it to be accurate. The error here is that a truly complete simulation ceases to be a game and becomes, instead, a closed mathematical equation. In fact, if a game existed that was so accurate, the original winner would always win — solely by virtue of the game's accuracy — it wouldn't be a game anymore.

Patrick should be asked to design a game or two, so that he will get a better understanding of his own gratuitous criticism of game

Simonsen

WALTER MITTY STRIKES BACK! or Just Call Me "Erwin" by Redmond A. Simonsen

Mr. Patrick's basic argument, is simply stated, is this:

A substantial number of gamers seriously believe that by playing wargames they are exercising the same skills and facing the same problems as a real field commander, and, furthermore, it is the "delusion" which is keeping wargaming from achieving the status of a "respectable" hobby.

Mr. Patrick offers no proof of his first point other than general references to advertising copy and the adolescent rantings to be found in the Opponents Wanted section of the *General*. Rather than being evidence of mass delusion, these things are simply the signs of people engaging in "suspension-of-disbelief" and plain old-fashion fantasizing. People are more sophisticated than Mr. Patrick prefers to admit. They can momentarily accept a half-truth (suspend disbelief) in order to maximize the emotional "bang" they get from a given entertainment (in this case a game). This psychological trick enables people to safely actualize their fantasies without becom-

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Patrick (continued from page 5)

The second wave, as typified by the more recent *S&T* and *TSG* examples does consider these points but they still are not apparent to the player for all that — he must assume they are there almost as a matter of faith. When this element of faith is missing, it produces the urge to tinker which has plagued Avalon Hill games as players try to adjust the rules to make them more "realistic" or more "playable" or to otherwise meet their criticisms.

The fact is that wargames have their own rules which, notwithstanding their grounding in military rules and military facts, are nonetheless unique to wargames. Thus, it is possible for a person adept at the playing of wargames to defeat an opponent who may be far more adept at the tactics of war. Wargames which depict historical events will, in all probability, duplicate the historical results when two equal opponents play, simply because all of the elements which created the historical result will have been programmed into the game by the designer. To allow history to be changed, the solution which seems to be coming to the fore is the alternate scenarios (what if?) which permit a different set of facts to be considered No battle exists in vacuo. It is the sum of what has gone before it reflects what is going on around it; it is a prelude to what follows. Wargames are so constructed as to permit the player to forget these facts. In Avalon Hill's *D-Day*, for example, after the second allied invasion, the Germans invariably send everything into the front lines because they know that the allies can only invade twice. In reality, they could have invaded more, but chose not to. Thus, the play of the game differs from the fighting of the war because the rules of the game permit it, and permit the players to ignore the context within which the battle was fought. As the art of designing games advances, one can assume that this problem will be minimized but it can probably never be eliminated.

In the end, the breach between reality and games will remain. It **must** remain if the "game" aspect of wargaming is to remain. The width of the gap depends on the desires of the players and designers. But until the existence of the gap is acknowledged by all, the Rommel Syndrome will thrive.

It is granted that the Rommel Syndrome is not something which everyone experiences, though there is reason to believe that a majority of the players (as opposed to designers) do experience it to a greater or lesser degree. It is also acknowledged that the Syndrome is a naive attitude for players to assume, though there might be some justification if one acknowledges that the average player is neither privy to what went on in the designer's mind, nor to the realities of warfare, and is therefore lacking the data on which to judge the naivete of his assumption.

But to dismiss the Rommel Syndrome as naive. juvenile or representing a minority group (as, in fact, it may) is to ignore the real problem. The hobby of wargaming is approaching a juncture at which it must either move to attain respectability or remain a pastime frequented by odd people who like to wear steel helmets around the house. The notion that model railroading is limited to men who never got over playing with a train under the Christmas tree has retarded the growth of that hobby, though it is gradually working out from under that onus. Other hobbies have similar problems and have either met them, or failed to, and remain juvenile activities (model car racing never managed to get out of the box the way model trains did). The Rommel Syndrome exists in the hobby and can be observed by those outside the hobby; witness the typical reaction of a non-wargamer when you tell him what you do to pass the time away.

Wargames require skill but a different skill from war. Once this is recognized by all, not just designers and a few discerning players, wargaming can assume its place recognized as a hobby which makes genuine demands on the minds of its players while at the same time affording entertainment and diversion - the two goals of any hobby. However, as long as the Rommel Syndrome is with us, as long as games still are sold with the notion that one can be an "armor tactician" by playing Panzerblitz, the necessary maturity will be lacking.

Young (continued from page 4)

emphasizes the unconscious surge to power; you will rarely see this in SPI ad copy. No more should you believe Avalon Hill's ad copy than Feminique or Pepsi.

I will admit that there is confusion between "hobby" and "professional" war games. However, this confusion is primarily among the unenlightened. Anyone who has seen a boardgame cannot confuse this with staff exercises, except the above-mentioned fanatics.

There are problems with wargames. However these are not unsolvable-we simply need the time and talent to work them out. Solutions rarely affect or placate the true fanatic-they are trying to cure the monsters of their own minds by externalizing complaints. One can only advise the ultimate, realistic cure for these individuals - stick pins in their arms when losing units to reflect losses.

Patrick thinks that we approach a junction in the upthrust of conflict simulation to legitimacy. I think not. Out of a minimum of 30,000 interested people, there are a few hundred individuals screaming their heads off. Noise never equals control, nor does it even indicate a trend. Take 30,000 people, and there will always be a few hundred who get excited about anything. They are the people who must be emotionally over-involved, due to their crippled psyches in acting out their own fantasies. But, like it or not, this is not the image of the wargamer, or of the hobby. The hobby will never encompass millions, but it is and will be as respectable as any other hobby.

Nofi (continued from page 4)

to emphasize "war" rather than "game", the end result would be uninteresting, unplayable, and still inaccurate. Very often one gets the feeling that people who seek more "realism" are actually looking for more "dirt". Thus, with reference to the Centurion game (S & T 25) many people claimed that the game left out the Roman javelins. Now, to be sure, those javelins should have been there, since to be completely accurate every aspect of the game should have reflected every aspect of warfare in Roman times. But how? The javelin was, in effect, a one-shot weapon. Once your troops threw the ones they had, there were no more left. How do you possibly keep track of that sort of thing? Of course, the game could have required you to indicate somewhere and someway which cohorts had thrown their javelins. However, given that the game contains a possible thirty or more cohorts to a side, think of how much bookkeeping that would require. At what point, in short, does "realism" begin to get in the way of the "game"?

Patrick makes several valid points, laying aside the assumption that there are people who think they can lick any man in the house having once defeated the Russians in *Stalingrad*. Thus, when he notes that, in many battles, it was not so much superior troops and technology as inferior generalship which decided the day - the Franco-Prussian War comes to mind - he is hitting a particularly exposed nerve among gamers. How does one represent a situation like that? After all, on strictly quantitative and qualitative grounds, both the French and the Prussians, to continue the example, were virtually equal. The

differences were in terms of leadership, and it was not so much that the Prussian leadership was so inspired, as that the French was so incompetent. To begin with, we do it straight. The game is designed so that, mechanically, it reflects the relative parity among troops and technique which actually existed during the campaign. This just happens to be unrealistic: for one thing, it permits the French to win. After all, a "realistic" game should come out the way the events actual transpired. Then, how is it made more "realistic"? An adjustment of things like victory conditions, making it more difficult for one side to win than for the other, is always profitable. This sort of thing makes the affected side take more risks, thereby putting it in more danger. Another possibility is something like the "Plan 17" rule for 1914 Revision. Here, the rules require that some sort of basically illogical moves be made for a given number of turns before the players are free to do what they wish. However, each course of action, while reflecting the historical realism, certainly is unrealistic within the essentially artificial realism of the game. Why play a war game if you must make the same errors that the other people made? In this context, of course, tinkering with the victory conditions is a bit less heinous than rules which force certain courses of action upon the players. At least there is some justification. But why should a second-guessing wargamer in 1972 be forced to make the mistakes he knows were made in 1914? So we accept that war games are games which more or less reflect certain aspects of war. We do not assume that they are the distilled essence of "What it's all about." It might be interesting to pit some noted general against some successful wargamer. The general would probably lose. After all, he wouldn't know the rules.

Champer (continued from page 4)

and games must be playable (see: child's definition of "games"). The obvious question now is: Can these skills ever be identical in a playable format? The answer to this question is a resounding **MAYBE**. SPI has made some impressive strides in closing this "Credibility Gap" between events and the games portraying them, and this is where the "State of the Art" enters the picture.

The "State of the Art", is basically a term referring to the stage of development in a certain field (be it curing mental illness, or designing Conflict Simulations). Most gameplayers are aware that, until recently, Avalon Hill completely controlled the field, and consequently they controlled the State of the Art. During that time, the only improvements made were at the cost of tremendous complications. This is not to discredit Avalon Hill, as many of the basic simulation concepts are theirs (or whomever they stole them from). Enter Poultron Press/SPI, and here is where those impressive strides come in. Each game had two or three additional "Mechanical Concepts" added to the basic "Game Form-(impulse movement system, infiltration, etc.). Each game had two or three new, built-in additions that insured a greater degree of realism, while having no effect on playability (such as building morale into the Combat Strength, and providing for the numerous "What-if" potentials of a given situation). Most importantly, expert attention was given to the organizational aspects of various gameprofessional talent in the functions by graphic-art field. But (but, but, but, but!). much has yet to be done. Hexagons alone pose a tremendous abstraction that has yet to be seriously challenged, and a simple simultaneous movement system has yet to be developed to replace the "Movement Sequence" (which no matter how colored by impulses and phases, represents the single greatest abstraction in Conflict Simulations). Until these and other very real problems are solved adequately, Conflict Simulations will require a different set of skills (although that difference is decreasing) than real war, and those "legitimate field commanders" will just have to read the rules. I myself have an idea concerning the elimination of these gameabstractions, but it requires a thirty-million dollar computer.

Understand that there is only one professional design team in existence at present, and any advance in the State of the Art is almost totally dependent on this team (hence the resounding MAYBE earlier). So think of the present State of the Art in terms Man's early attempts at flight: dozens of people were killed in the early attempts (and so it goes) to perfect flying. Well, they failed. Men still cannot fly without cumbersome machines, Getting back to computers,..."Poo-tee-weet?"

Zocchi (continued from page 5)

elements during which no combat operations were conducted in the real campaign. The *Stalingrad* game recreates the sum of all that has gone before it by denying the Russians replacements if certain cities fall into German hands. When playing the game, we are aware of the consequences resulting from the German player capturing any of the key cities, but seldom think of the situation as "the sum of all that has gone before."

Some games, like Jim Dunnigan's *Normandy* and *Flying Fortress* offer the players the opportunity to change "all that has gone before," Jim calls these options "What if's", and permits the players to see the situation as it was, how it could have been, and what it might have been.

While Mr. Patrick was correct in pointing out that war games with miniature soldiers are capable of accurately portraying morale, training and weaponry characteristics more effectively than most board games, the readers must remember that most miniature games are tactical in nature, whereas most board games are strategic.

General Lee was a great tactical genius. He won almost every battle, yet lost the war because Lincoln made strategic moves which negated all of Lee's hard-won victories. Those who play with miniatures spend an evening fighting a battle which the board gamer decides on the roll of a die, because the scope of their operations differs from that of the board commander. They command a company, battalion, or regiment, while the board gamer directs the movements of divisions, corps, and armies.

"Victory most often goes to he who has better mastered the mechanics of play, regardless of his tactical ability." Mastering the mechanics of play in a board game is parallel to learning the arts of leadership and command in real life. While the techniques bear a parallel relationship, they are not necessarily complimentary. You can fight a great board game because you are aware of all the intricacies involved, but this is no indication that your perception of the real life situation would be as acute. Nor does it necessarily follow that, even though you can correctly anticipate the enemy's intentions, that you can convince the men you command to do as you direct. Are you capable of inspiring the men to do more than merely follow orders? Napoleon's officers frequently showed remarkable initiative because his leadership inspired them. Could you do as well?

Generally speaking, the wargamer has incredibly accurate information about the enemy's location, strength, and capabilities. He also enjoys the advantage of lingering over difficult situations until the proper solution can be found. Who among us has not moved a unit from one location in the line to another, and then thought better of it and moved it back where it came from? Who has discovered at the last minute that he needs one or two more factors to make the attack a "3-1" instead of a "2-1"? At the last second, haven't you moved up an extra unit to bring the necessary power for that 3-1? We all do little things like this, but try to imagine executing that same type of last minute decision with real live people already committed to attacking somewhere else, or in such a position that any redeployment from it would betray the presence of an unsuspected unit to the enemy and thereby alert him to the possibility of an unsuspected attack?

You probably come closer to showing your real mettle as a commander when you play a board game for the *first* time against an opponent who is as skillful as yourself in most simulation games. The second and subsequent times you play the same game you become more skillful. If Rommel had it to do all over again and could continue to practice the campaign over and over as you do,... get the idea?

Williams (continued from page 5)

designers. "Nice try", he seems to be saying, "but it ain't war."

Well, man, of course it ain't war, But the games have many more elements of real conflict than you are giving them credit for.

Patrick should get it out of his head that the original Avalon Hill games are anything near accurate. Those he mentions, *D-Day* and *Afrika Korps*, are the most inaccurate of the 40 or 50 published games,

In fact, the historical accuracy problem at A.H. was so bad that A.H. had to commission outsiders — Jim Dunnigan and myself — to do some really accurate games. We did, with Jim's *Jutland* and 1914, and my *Anzio*. Unfortunately, in addition to finally giving A.H. accurate O.B.'s and maps, Jim and I threw in everything but the kitchen sink in order to preserve situational accuracy.

The games were approaching the point of the predictable closed mathematical equation. Now, Mr. Patrick doesn't want **that** does he? Since then, of course, there have been some real breakthroughs in design technique, mostly thanks to Dunnigan. The new wave of games is getting simpler, and much, much cleaner, while preserving both situational and factual accuracy. Note the **Test Series Games** and **S & T.**

And that gets us to what a wargame, or any game, really should be: a psychological conflict between two (or more) people. In the case of wargames, we have extensive military and historical window dressing. This window dressing creates a specific conflict, as opposed, for example, to chess, where the conflict is general. In fact, the improved situational accuracy of recent games indicates the hobby will be attracting non-Walter Mitty types.

Those elements of "real" war which are found in the games may be:

- 1. psychological conflict between two opponents.
- 2. the need to master, and I mean really master, a mass of technicalities, i.e., the rules.
- 3. the need to apply most, though admittedly not all, of the principles of war.
- 4. the need to cope with not only your opponent's surprises, but other random elements as well. (Average generals usually know how to stave off bad fortune, but it takes a higher mentality to take advantage of good fortune. This is just as true on battlefields as in wargames.)

It seems Patrick likes wargames, but doesn't want to admit they are games because that would seem immature, nor that they have anything to do with war, because that's not cool anymore. I know exactly what he means. We can't throw everything into a game, but we're doing the next best thing. We're designing games around previously ignored elements of conflict — the idiocy factor in *Goeben* and *Tac 14;* traffic jams in *Bastogne*, etc.

Meanwhile I'd like to see Patrick, with his acute awareness of the normally neglected elements of military conflict, design a game. I bet it will be a good one.

Simonsen (continued from page 5)

ing schizophrenic. If one were to question them about what they were doing, they would freely admit that they don't really believe it (i.e., they don't really believe they could manage an army) but isn't it fun to imagine that you're really exercising that much power. Mr. Patrick wants to take a large part of that fun away from people. He wants them to keep uppermost in their minds that what they're doing is a sham, an abstraction, an incomplete model of the real thing. What a boring, priggish idea

Regarding Mr. Patrick's second assertion: just what is a "respectable" hobby? Stamp collecting? Tropical fish? Golf? All hobbies have their cult aspects and may at times seem slightly odd to non-hobbyists. All hobbies have a lunatic fringe that is sometimes the source of embarassment to its less compulsive members. Who is supposed to "recognize" wargaming and give it the stamp of approval, declaring it to have reached "maturity"? Hobbies grow because they fill people's needs, not because they are somehow adjudged "mature". In fact, the very thing that Mr. Patrick wants to supress, is one of the prime reasons people participate in hobbies: to have a controlled model (of the uncontrollable real world) in which to act out their fantasies...and they do recognize them as fantasies - they just don't want to be constantly reminded of the fact.

AFTERWORD: Dunnigan

"The Game Freaks Know What the Game Designers Don't Understand." by James F. Dunnigan

Aside from presenting a lot of interesting trivia and opinion on what a large group of active game designers think about games, the point everybody missed, and the point Steve Patrick was trying to make, was so obvious that everyone overreacted. Patrick was talking to game players, not game designers. From my observations and conversations with a fairly large (and random) assortment of game freaks, it seems obvious that most game designers are not aware of the state of ignorance prevalent among game players. By "ignorance", I mean ignorance concerning how the games are actually designed. Game design is an art/ science like many others, with more than its share of "mysteries" and obscure techniques.

Granted, this "ignorance" is not a very large factor for the game designer to consider. What difference does it make what the game player thinks of how the game was designed, as long as he likes the end result. I suspect that many game players will agree with Patrick's article. From their point of view (which includes a considerable degree of ignorance as to just what goes into a game's design), Patrick's article has considerable validity. At the same time, I agree with both Patrick and everyone else who put him down (with perfectly relevant arguments).

Now, from the designer's side of the fence, your typical game is a hopeless compromise. Individual elements of the game were twisted beyond recognition in order to achieve the "end result" accuracy needed in an historical game. But designers are more aware of this technical carnage than are players. Designers must (if they are to do a good game at all) obtain a fairly accurate knowledge of the situation. They cannot use the "benefit of the doubt" when viewing some of the hairy things they must do to sundry elements of the game. A game player doesn't know exactly what's going on when he sees something strange in the design of a game. If the game "comes out right", it really should make no difference to the player.

With the above in mind you can see how a designer can call a game a "hopeless compromise", while many players call the same game a "monument to historical accuracy". In the end, of course, both the designers and the players are correct.

Games, like any other form of communication, are by their very nature inaccurate. But at the same time they must retain as much accuracy as possible. The fact of the matter is that games are getting better. The "state of the art" in game design has made steady progress in recent years, and we now have many games which are not only accurate as a whole, but also in their parts. Mr. Patrick has pointed out however, that there are numerous critical elements still largely ignored in games. But then, it's just a matter of time.

Now that everybody is thoroughly confused, allow me to explain this apparently two-faced attitude. Fundamentally, Patrick is correct. A game, if it is done right, should be capable of re-creating the original event with a considerable degree of accuracy, particularly with regard to the final outcome (but not necessarily to exact sequence of events of the original battle). This is essential if the game is to have any appeal or historical "interest". Most gamers consider it some sort of "miracle" (or at least a mystery of sorts) when this sort of accuracy is achieved. Most often it is achieved after a rather rough fashion. To be sure, it is rare when the historical sequence of events also appears intact in the game. This is obviously as it should be, for the "mentalities" of the two opposing commanders is replaced by the two players. Also missing are many of the "background" elements (such as logistics, rear area security, transport capability, etc.) mentioned by Patrick. • •

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A Brief, Physical Description of Simulation Series Games

The physical quality of Simulation Series Games is very similar to that of the games included in issues of Strategy & Tactics. The primary differences are (1.) the map is produced on heavy cardstock as opposed to the lightweight stock used in magazine games, (2.) a die is included and (3.) the map is only folded twice (down to approximately 11" x 14") and the game is shipped in a plain envelope with a corrugated stiffener (unboxed). Usually, Simulation Series games have a greater amount of auxillary tables and game charts included with them.

1940 REVISION

by Jeff Schramek

S & T's recent game, 1940, (issue No. 27) is, quite apart from its great historical interest, one of the most captivating and realistic games as of yet. Possibly its greatest attraction to part-time gamers is that this realism does little to detract from playability. The Mechanized Movement Phase gives mechanized forces their exclusive ability of exploitation, such as no other game of which this writer knows, which are many. Still better, it costs three extra Movement Points to enter a ZOC, and two extra to disengage. In all other games, this writer has seen, a unit could move its full allowance and still fight a battle in the same turn. The other games all ignored the fact that a battle takes time to fight - time which, of course, must be deducted from the time available for a unit to move. In 1940, the old problem of offensive warfare asserts itself: troops moving entirely without opposition (such as reinforcements) move faster than do troops moving into the front (where they're needed).

Still, wargamers consistently hope and strive for perfection, and 1940, as all games, has its faults. First, by a bit of accidental research, I discovered a flaw in the order of battle. As part of my historical curiosity, I flipped through such accounts as the memoirs of v.

Manstein and Guderian to find out which German units fought where in the original campaign. The place where the panzer divisions fought is no secret. But the SS troops and other motorized divisions and regiments are another matter. So I came upon Guderian and his mention of the 20th and 29 motorized divisions, and Manstein's mention of the 2nd motorized division in their accounts of the campaign.

Upon a further examination of the above mentioned sources, it becomes obvious that all three units belonged in the game. I looked them up in the game's unit counters and order of battle and through all three should be 2-8's, only two 2-8's. are allotted the Germans. Therefore, as a correction to the original game, the German players should be given an additional 2-8. As a compromise (admittedly one in favor of the Allies), the German should receive it on turn 7.

The game's designer made two other errors, less technical and more inexplicable in nature. For one, no provision was made in the rules for Allied sea movement of troops, such as happened at Dunkirk. In the real event the largest number of troops evacuated in one day was 68,000. Therefore, the Allies should have the capacity to evacuate a maximum of three corps per turn per port at Dunkirk, Calais and maybe even Antwerp.

The next correction deals with supply. There is no special supply rule for the Dutch and Belgians. In the game it is assumed that both neutral armies receive supplies from the French. This is O.K. for the Belgians, who

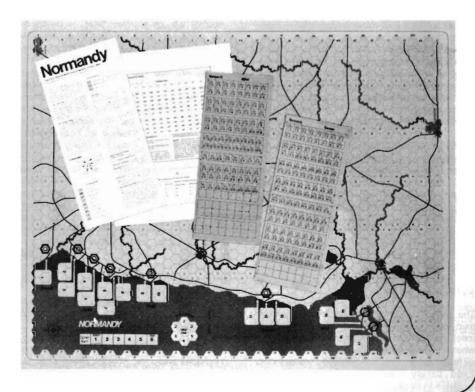
were allied with the French from 1919-1937, and whose logistical system was therefore coordinated with that of the French. The Belgians should receive supplies from Brussels and Antwerp, Liege, Namur and Ghent. Should the Germans take all five cities, that is to say, should they conquer all Belgium, the Belgian Army surrenders. The Dutch Army receives supplies from the hexes on the north side of the board which lie on Dutch territory (on the road to Rotterdam and Amsterdam).

And, finally, for those interested in play balance, I suggest that air power is not a vital part of the game and therefore could be left out. In the games I have played as the Germans against an experienced wargamer, I have found that the Allied player had a difficult time as it was, just trying to stop the panzer divisions. The massacre that would, and did, result from the Luftwaffe's air superiority leaves the Allied player without a ghost of a chance and thus takes much of the meaning out of the playing of the game. The terrific complications that the air power rule produces also helps make it expendable. The optional paratroop rule also helps game balance, but should be tackled only by those who love complications, Besides, allowing the Allies knowledge of something about which they knew nothing is unrealistic. The Variable Victory Conditions are very good, as they give a better idea of how good or bad a given victory or defeat was.

Without complications, these suggestions are designed for realism. They, themselves, are open to revision, especially in the case of the second and third suggestions. Other ideas would always be appreciated.

NEW, Simulations Edition NORMANDY, June 1944, D. Day to D+5

Normandy is a regiment/battalion scale game recreating the amphibious assault and battle to establish a beachhead in Normandy during June 1944. The game-scale is 2 kilometers to a hex and the mapsheet shows the entire Normandy beach area as well as areas as far inland as Falaise The Germans have six orders of battle, reflecting different strength options from their original strength to their maximum possible deployment, all covering the first week The Allies have only one order of battle, but with this massive force, they may launch an invasion containing regiments of paratroopers, battalions of rangers and commandos, as well as numerous other infantry divisions and tank units. A fluid, double-phase movement system is used. The staggering tactical effect of the Normandy "bocage" is reflected in the game, as well as the Allied lack of supply during the initial stages of the invasion. Normandy is available for \$5.00 from Simulations Publications



Between the Crimean War (1853-1856) and World War I (1914-1918), England devoted its attention to India, Southeast Asia and, particularly, Africa. In South Africa a tripartite struggle developed: the British, the Dutch-descended Boers and the African natives. In 1872, the accession of Cetewago as Zulu king led to the rise of Zulu strength. In December, 1878, the British demanded a protectorate over Zululand; Cetewago ignored the demand. So, in January, 1879, General K.A. Thesiges, Viscount Chelmsford, invaded Zululand with 5,000 British and 8,200 native troops. The Zulus had some 90,000 men under arms. Key battles were: Isandhlwana (January 22, 1879), a Zulu victory; Rorkeś Drift (January 22-23, 1879) where 45 British held off several thousand Zulus; the siege of Eshowe (January-April 1879); Kambula (March 29, 1879) in which some 20,000 Zulus were driven off by a handful of British; and Ulandi (July 4, 1879) in which 4,200 British and 1,000 natives held off 10,000 Zulus, breaking the attackers, then counter-attacking with a small (300 man) cavalry force and routing the Zulus. This was the end of the war since Cetewago was forced to become a fugitive, finally being captured August 28, 1879. The Zulu War was typical of the wars waged by the British in the expansion of their Empire, and reflected the disparity between natives armed with their primitive weapons and the equipment possessed by the British. The Zulu War also underscored the fact, later called to mind in Viet Nam, that while the superior force will, in the end, "win", the "inferior" force often had a greater degree of flexibility which enabled it to score victories which no one would have anticipated. The Zulu War in many ways helped the British re-evaluate their military policies and, coupled with the influence of other wars during the period, resulted in the reforms which proved so crucial in 1914.

The Zulu War is an interesting conflict for several reasons. First there is the fact that, in the Zulu War, the British Army sustained one of the most costly defeats ever inflicted upon it by a nation of **supposed** savages. Secondly, it showed what might have happened had the British Army been forced into a war with a nation possessing truly efficient military organization. Finally, the Zulu War showed the strengths and weaknesses of the vaunted and romanticized British Army of the Victorian Age. Let us now examine this conflict.

THE BRITISH

On the whole, the British soldier had improved considerably since the Crimean War. No longer was the Army recruited from the prisons or from the slums and gutters of England. However, discipline was still harsh (flogging was still used as a field punishment), pay low and the men almost all illiterate. Service as an enlisted man was hardly desirable, but for some the only choice left. However, morale was high, the men themselves were well-fed and looked after, and the British soldier was still willing to fight for the glory of his regiment and Crown.

The average British soldier was well-fed, as was mentioned. His field diet consisted of bread, meat, tea, coffee, preserved potatoes, rice and whatever fresh vegetables could be found and pilfered from the surrounding countryside. Field bakery wagons were always readily available in camp, but would rarely accompany

Zulu War

By Guy Woodward



the troops on a march, so hardtack was issued in the absence of bread. The men also received a ration of rum daily, one of the main reasons for high morale, and this could be easily supplemented by the stocks of gin found in almost every pub in Natal.

The standard British weapon of this time was the Marini-Henry .45 cal. rifle. It was a single shot, breach-loading rifle which weighed some ten pounds and was an effective piece against relatively unarmed savages when in the hands of a well-trained professional, although its soft copper cartridges tended to jam in the breech when the weapon became heated (which was often). All in all, it remained a good weapon. Its effectiveness was due to the soft lead slug that expanded upon impact, ripping and tearing flesh, smashing bone, and leaving hideous wounds. For a people without medical service, such as the Zulus, a warrior badly injured by a slug usually had to be dispatched with a swift spear thrust under the armpit. Volley fire commenced at an effective range of 600-800 yards, and even a mediocre marks man would score a hit at a range of 300-400 yards. Each man carried 70 rounds on his person when in the field, and was backed up by a further 480 rounds held in reserve. The only other weapon issued to the British enlisted man was the old triangular bayonet, known to the men as the "lunger."

British officers were armed with privately purchased weapons, usually a sword of some type and a center-fire double-action revolver, either Adams or Webley in make. The basic unit of the British Army in the Victorian Age was the battalion. This was because the Army was forced to fight many small, punitive wars across the globe, and the smallest unit which was self-contained, yet able to hold its own against an enemy (thus effectively meeting this demand) was the battalion. The average British battalion in 1879 consisted of eight lettered companies, each containing 90-100 men. The battalion also contained the necessary quartermaster, supply, medical and transport elements within its structure,

The heart of the British Army was its unusual regimental system, a system not suited to the 19th or 20th centuries. Still, the British Army revolved around its regiments. Each regiment was in fact a social organization, which looked after its own. The individual British soldier took extreme pride in his regiment, in its accomplishments and its history. He would willingly fight and die for the regiment if it would add to its glory. Yet the very nature of this system created unnecessary strife between the regiments and even within the battalions which made up the regiments. Due to his high pride in his unit, which certainly is not unhealthy, the average soldier became condescending toward the other units of the Army. These conditions led to a state in which units would not willingly stand next to or even be quartered next to a unit with which they were feuding. This created undue and unnecessary friction in camp and in battle, which hindered efficient conduct of a campaign. Yet, on the other hand, other regiments were close friends, co-operating with each other wholeheartedly, this being due to the fact that at one time these particular units had gone through some battle or experience together and thus felt some degree of camaraderie.

On the higher levels of organization, the British, toward the end of the war with the Zulus, organized their units into divisions and brigades. At this time a brigade consisted of roughly three battalions, and a division of two infantry brigades, plus a brigade of specialists, such as the brigade of cavalry assigned to the 1st Division.

The standard British defensive tactic had not changed in the 64 years since Waterloo, It was the square. Due to past experience, the British felt the square was more than suitable for use against hordes of charging savages, when coupled with controlled, disciplined volleys of fire. British doctrine stressed dense formations and volley fire when dealing with the natives of Africa and Asia. It was felt the dense formations afforded the individual more protection in hand-to-hand combat, since he and his fellows could easily concentrate several of their bayonets on one enemy. The sheer density of bayonets protruding from a square was enough to discourage any charging warrior. Finally, if formations were dense enough, they allowed for a greater concentration of fire against the enemy, and thus allowed greater damage to be done.

However, if the British were caught unprepared or outflanked, or some other difficulty arose due to one of the numerous, typical Anglo-Saxon foul-ups, the results could be disastrous for the British unit involved. A prime example of this is the Battle of Isandhlwana, where the Zulus succeeded in destroying two battalions of the 24th Regi-

ment of Foot, plus assorted native units and bearers, 2,800 men in all. The British formed up well, in two ranks facing the Zulus, inflicting heavy casualties. However, ammunition ran out, and the quartermasters, plus British packing methods, prevented the swift resupply of ammunition to the firing lines. The Zulus, as the fire slackened, took heart and smashed a native unit, swinging through the British line and enveloping the troops from the rear, totally wiping out the units. The Zulus took no prisoners and after a battle disemboweled the bodies of their enemies. But, all in all, it was the square which was still the best formation against the Zulus. If a unit could be squared before the Zulus overran it (barring some foul-up), the unit stood a 100% chance of survival. The entire course of the war could be boiled down to the fact that the Zulus stood no chance in a fire-fight, while the British stood no chance in hand-to-hand combat.

THE ZULUS

The Zulu warrior led a Spartan existence, Hè was a toughened veteran of the many imperialistic wars fought by the Zulus in their early history. Hè was accustomed to running barefoot over rough country and, if necessary, could cover fifty miles in a day. He lived entirely off what could be found to eat in the surrounding countryside. The military dictated the warrior's very existence, for through it, the Zulu was able to prove his manhood and, probably the most important feature of military service, if his regiment distinguished itself in battle, he was then allowed to marry. So, in effect, the Zulu male's life revolved about the military and its duties.

The Zulu warrior, in contrast to the well-armed British infantryman, was armed only with his assegai, a spear designed for close fighting. The idea behind it was for the warrior to close with the enemy and finish him with a swift thrust from his assegai. The assegai was not a throwing spear, but, rather, one designed for thrusting and jabbing. It thus put the Zulu warrior at a serious disadvantage when faced with an enemy capable of opening volley fire at 800 yards. If he lived through the repeated volleys and got close enough to use his assegai, he still had to fight through a wall of bayonets to use it. As can be seen, his chances of survival were little. His only protection was offered by a rawhide shield, which was fine when used in battle with another group of men armed with spears, but absolutely useless against the lead slugs of a Martini. Finally, the Zulus did, at times, succeed in capturing British weapons and their ammunition, but, due to the unfamiliarity of the weapons (such as the several field guns taken at Isandhiwana), the Zulus had little success in the utilization of captured British arms.

The Zulus were thought to be the typically unruly, undisciplined savages who would be made short work of by the British regulars. Unfortunately for the British, that was untrue. On the contrary, they were a highly organized, highly disciplined and able military organization. The basic Zulu unit was the regiment, which consisted roughly of between 1,000 - 1,500 warriors, though this number could fluctuate between a mere handful of grizzled veterans, the last survivors of their regiment, to 2-3,000 fresh young warriors. The regiment was unusual in that it was called up by the king. If at any time during his reign, the king

COMPARISON OF BRITISH-ZULU STRENGTHS

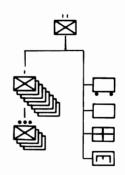
BATTLE	ZULU**	BRI	BRITISH*				
		Inf	Cav	Native			
Isandhiwana-							
Rorke's Drift	14	9	-	7			
Inyezane	5	2	-	1			
Kambula	6	1					
Nampula	O	'	•	-			
Ulundi	14	13	2	5			

*British strengths are given in terms of regular army battalions. For Isandhlwana and Ulundi the strengths given are total number of units fielded, not all of which took part in the battle. A number of irregular units recruited from British spicts in Natal were raised, but these are not included, since their strengths varied greatly, and they usually fled upon sighting the Zulus.

Native forces were locals organized in a manner similar to the British battalions who fought alongside the British against the Zulus. The drop in strength is due to two battalions being dissolved due to their treatment at the hands of their commander, a brutal, prejudiced Irishman.

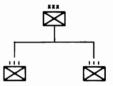
The use of cavalry rates mention. It was useful against the Zulus, especially at Ulundi, where it shattered a Zulu charge. However, the cavalry proved more of a hindrance to the British than an asset. The horses, first of all, were brought from England, where they had fed on thick British grass, In South Africa all they had was a few tufts of grass here and there. The horses nearly starved. In order to prevent the entire complement from starving, fodder had to be imported from England to feed them. Also, the English horses were shipped in the holds of transports (a journey of several months) so that they arrived in an emaciated state such that they could not even be ridden on arrival. They had to be first nursed back to strength.

**Zulu strength is given in total number of regiments fielded at the specific battle.



BRITISH BATTALION, 1879

This shows the general organization of a British battalion circa 1879. During the days of the Empire, the battalion was the basic unit of the British Army. Larger units, such as brigades and divisions, were formed to carry out special tasks but were not usually permanent affairs. The battalion was nominally part of a regiment, but, in fact, regiments did not maneuver as such.



THE ZULU CORPS AND REGI-MENT, 1879

This chart indicates the Zulu organization. Each regiment consisted of 1,000 to 1,500 warriors. Two or more of these regiments were organized into corps, each corps being stationed at a particular kraal, a communal farm used by the Zulus. Each regiment had a specific name to reflect the type of men of which it was made (The Brave, or The Emperor's Own or something like that), or some similar statement of the men's strength and battle prowess. Each corps was named after the kraal at which it was stationed.

deemed it necessary to create more military muscle, either for some coming campaign or his own ego, he would summon a group of herdboys just out of puberty to join. It was not mandatory, but the only way to prove oneself as a man and a warrior was to join a regiment. Once in, the boy was in for life. Therefore, each regiment consisted of men of the same age group and was ready to respond at any time when, and if, the king summoned them for battle. Once in the regiment, the men were trained in the ways of a Zulu warrior, such as the use of the Assegai, and in the carrying out of the complex Zulu tactics of encirclement. The soldiers lived in enforced celibacy until they proved themselves in battle, at which time they were awarded the isiCoco,

a headring of fibre which was sewn in place about the head and plastered into position with beeswax. The headring then symbolized that the regiment was now proven in battle and elite, and so its warriors were allowed to marry. The men owed everything to their regiment and, in a manner remarkably similar to the British, they were devoted to it. Each regiment chose its own colors, which were painted on its shields, and created its own song and dance, much in the same way British regiments had their own regimental badges and songs.

The regiments were commanded by an *in Duna*, a man who, in times of peace, collected taxes and settled disputes in his particular district,

and, in times of war, commanded the military units of that district.

The Zulus possessed units of higher organization, too. The next unit above the regiment was the corps, which consisted of two regiments or more, loosely under the command of the senior in Duna. The largest Zulu unit, if it could be classified as such, was the impi, which was merely a grouping of regiments under the command of an in Duna chosen to be senior commander.

As can be seen, the Zulus were hardly disorganized primitives, such as the Bushmen, but actually possessed a military organization ironically similar to the one used by the British. It had units and commanders, and could fight battles much the same as could any European army.

The Zulus possessed a rather complicated system of tactics of encirclement known as the "buffalo head." It was a highly developed tactical maneuver which demanded solitsecond timing and judgment. Four elements were used: first was the main body, called the "chest," which was the strongest of the elements used and was to close to the enemy and hold him firm. The second and third were the flanking columns called "horns," which raced out around the enemy, one to each flank, until their tips met and they encircled the enemy. Upon meeting, they turned in and worked toward the center. The fourth element was the reserve, called the "loins," which was positioned behind the main body with the men's backs to the battle to prevent them from becoming excited and joining the battle

before being committed by the commander. If the maneuver could be pulled off, it was deadly, for thus encircled, the enemy could be methodically chopped to pieces. However, if the enemy was a British square, the Zulus stood little chance of success, for even if surrounded, the square's volleys and its wall of bayonets would be able to thwart any Zulu attempt to close and do battle. However, if must be emphasized that if the unit attacked in a disorganized manner or, due to some blunder (all too commonplace at this time in the British Army), was unable to maintain its fire, the Zulus would be able to make short work of even the square.

CONCLUSIONS

In fact, one must conclude that the Zulus stood a very small chance of ever winning. Though Zulu organization and tactics were excellent, their lack of firearms prevented them from ever gaining the upper hand against the British. The Zulu war, in fact, settled very little. It only proved British superiority over the unfortunate natives of Africa and added a few more square miles to the Empire. But the very nature of the war and the bitter determination of the Zulu's fight showed the flaws of the British Army. In fact, that a group of supposed savages could destroy two full battalions of Imperial infantry at Isandhiwana was enough to show the British that the Zulus were not merely a lot of savages. The Zulus were a disciplined force of warriors who possessed bravery and determination unsurpassed in the history of Britain's imperialistic wars. It showed the British that their tactics were not perfect, but, rather, were primitive, out-dated and, in their execution, frequently bungled. However, these deficiencies were not corrected right away. They were left to languish, and finally cropped up again in that magnificently bungled affair known as the Boer War. It may be concluded that, to remain a system which is able to function properly and with the utmost efficiency, a military organization must adapt and change so as to stay abreast of the latest developments in science, technology and, perhaps more important than any of these, with its enemies, It all comes down to that one evolutionary law: change or die.

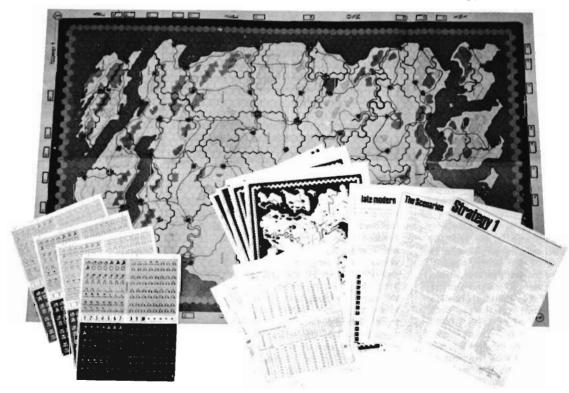
BIBLIOGRAPHY

To say there is a scarcity of books on the Zulu War available to the general public is somewhat of an understatement. To my knowledge, only two works are available. The first, Donald Morris' THE WASHING OF THE SPEARS is excellent. It contains much material of interest to the military enthusiast and wargamer. Its descriptions of campaigns and battles are crisp and precise. All in all and indispensable book. Next comes Rupert Furneaux's THE ZULU WAR: ISANDHLWANA AND RORKE'S DRIFT. It is not a work that is either indispensable or good. Though it does at times get into the nuts and bolts of the Zulu War, it is really a rambling narrative of the war as seen from a first person standpoint, utilizing various reports and remembrances of participants, From a purely human interest angle, it isn't bad, but overall it pales compared to THE WASHING OF THE SPEARS. Both of these books should be available at any reasonably large library.

Strategy I

A game of endless possibilities. Basically a "game designer's kit" containing two full-size geomorphic two-color maps that can be fitted together 48 different ways. Eight (120 piece) identical sets of counters (each a different color). The largest and most complete set of

game rules ever published. But they are in "module" form, so that the players need only pick the ones they want to use. 17 game "scenarios" are given covering campaigns from 350 BC to 1984 (that's right). This game can be anything you wish it to be.



\$10.00

Combat Results & Tactical Games

by Stephen B. Patrick

While the pages of *S&T* and related publications are not normally devoted to ratiocination, sometimes, rather than simply relating new developments in the state of the art of wargame design, it is worthwhile setting forth some considerations concerning areas suitable for further development, rather than the solutions. The subject here is the Combat Results Table in tactical games.

First, some ground rules are in order. One must determine the direction of approach to be used. At two poles are the touchstones of authenticity and playability. One can start with full authenticity and back off far enough to gain playability, or start with a purely playable system and work toward realism by adding the elements of historicity to give the right flavor. There will be a gray area where the playable takes on the flavor of war and where the war becomes playable. Moreover, this point will differ depending on the point of origin. Thus, S&T has opted to approach from the authentic, while Avalon Hill has come the other way. The result is visible in comparing the S&T and Avalon Hill treatments of the same areas - Barbarossa vs. Stalingrad; Bastogne vs. Bulge, etc. The first approach will produce different rules for virtually every game, while the latter will produce about the same rules for each game, as was apparent in the pre-1914 land war games from Avalon Hill.

One of the immortal contributions of Avalon Hill has been the Combat Results Table (CRT), with its now memorable outcomes: "A" or "D back 2" or "Elim." When *S&T* came out with tactical games, a similarly simple set of results was established: "no result," "elim" and "dispersed."

Perhaps you have wondered what real-life results the tactical games' Combat Results Table represents. If not, you ought to have wondered because the Combat Results Table is one of the most, if not the most, crucial elements in the game, more than even the Attack and Defense Strengths. The basic thesis behind this article is that the present tactical Combat Results Table is the most archaic element in S&T's bag of tricks — the most playable/non-realistic element currently in use.

Assuming that a turn in a tactical game represents a fixed period of real-time, an attack, during that period of real-time, would produce the following results at the end of the period: both sides joined in battle; the attacker

repelled: the defender driven back in good order; or the defender routed. There are some other ramifications. An attack in a given turn may, in reality, be a continuation of a prior attack (the last time period ending with the forces joined in battle). The impact, or shock if you will, of the initial meeting of forces will be far greater than the continued toe-in-toe slugging of a continued battle, with one side more likely to break upon initial contact than at any other time. Similarly, even if the attacker drives the enemy from the position, the victory may have been Pyrrhic, and the attacker is thereby unable to follow it up, independent of the results on the defender. Finally, the later it is in the battle, the more fatigued troops will be, particularly if they have been in the line throughout the fight. At the end, the ability of a unit to stand is much less than at first and the introduction of fresh troops, or the last effort of resolve, will then carry the day. In any event, as fatigue begins to tell in a long battle, the end will be near, since one side or the other may be expected to give way, if only to lick its wounds. Thus, one has available several points of view of looking at a battle: whether the action of a single turn represents the initial attack, a continuation of a prior attack, or the tail end of the battle and the effects the events of that period have on the attacker and defender.

Having stated the foregoing to be, in gross terms, the sum of the possible results which may be obtained in a given turn/time period, the question then is how to relate these real-life results to a game — to go from the authentic to the playable.

The first point of inquiry is the result which should appear in a realistic tactical Combat Results Table. The situation where both sides remain locked in battle is obviously the present "no result". The retreat of an attacker or defender (with or without the other side following up) can be handled by a straight steal from the Avalon Hill Combat Results Table of "A back 2", or whatever is desired. What, than, of "dispersed"? The condition in the game results in a piece/unit being unable to act for a full turn. There is a real-life parallel to this, though perhaps a more descriptive word is in order. Although less elegant, "shaken" carries the correct connotation. A unit which is shaken may or may not rally and fight on there is nothing inherently fatal in a unit being shaken, unless the enemy follows up. This is the effect presently achieved by the double dispersed rule.

There then remains the problem of "eliminated". Realistically, few battles result in an entire unit being destroyed to a man in a given time period, particularly during the brief period of time portrayed in the tactical games. Thus, there must simultaneously be some way to reflect the decline in strength from being in the thick of it and, at the same time, to get units off the board. After all, pasteboard pieces don't really have morale or take losses, so something must be injected to bring the authentic within the realm of playable. The 1914 solution of stepped units is obviously the best way to reflect casualties short of going the bookkeeping routes. But even the 1914 solution is viewed with displeasure by some. Moreover, the 1914 solution requires the injection of a whole set of pieces. The object here is to consider the requirements of a Combat Results Table which can be inserted in any game without having to totally revamp the

rules. A second solution would be to apply the present Double Dispersed rule in the context of double retreat: a unit forced to retreat twice within a full Game-Turn would be eliminated. A third possible solution is to take the two possible retreat possibilities — retreat in good order, and routed — and consider the latter to be eliminated. This can be justified in a tactical game with the recognition that some units may be eliminated from taking part in a given battle, through they may well otherwise be in good shape as far as strength is concerned, and therefore not literally eliminated to a man.

The point to note is that one could easily add similar results for the attacker. This would not have to be the Russian Roulette type which is present in the Avalon Hill Combat Results Table such that an attack at less than 3:1 means a quick chance at suicide. At present one can attack at 1:2 in tactical games, under certain situations, and have a chance of winning. Anyone attacking at those odds should also have a chance of getting clubbed for his efforts. The Combat Results Table should reflect this realistic outcome.

How much further one goes now depends on how close one wants to stay to authenticity. The first thought is the injection of a different system of results to reflect the first shock of attack. Some, such as the ancient Greeks, put great emphasis on that first shock and the Combat Results Table should reflect this is a possible effect on combat. Then, too, there is the other end of the battle, when people are tired and fanaticism and/or good training starts to win out. A third Combat Results Table might be applied to the last three or four turns to reflect this strain.

The foregoing is an indication of the elements is an indication of the elements which, it is submitted, ought to be in a valid Combat Results Table for a tactical game. How they are arranged, however, should vary from game to game. Again, the touchstone here is real life. If the game depicts a given historical battle or period, the Combat Results Table should be tailored to suit the period. For example, a modern fire fight is a short, sharp affair with neither side really able to pin the other into a battle unless an ambush is well-sprung. Thus, the fatigue element might not be as important as the initial shock, with the surprise going to he who hits hardest first. On the other hand, more ancient the period, the less maneuvering there'd be once the battle was joined and the greater the tendency to stand toe-to-toe until someone finally gave up. Strategy I reflected another logical innovation: different Combat Results Tables for different sides. In Centurion (Tac 13; S&T Nr.25), why try to produce a complex series of rules to hamstring the barbarians when you can give the Romans a better Combat Results Table and accomplish the result both more quickly and, perhaps, more accurately.

Returning to the real-life situation, the key is good research if one is to have a good Combat Results Table. The result, if the research is good, should be a Combat Results Table which can complement the accuracy of the rest of the rules in evoking the period in question. The obvious point, though, is that the Combat Results Table now becomes an integral part of game design, rather than a handy plug-in section, such as the initial description of the pieces and the game map, and it is as

important to make the Combat Results Table valid as it is to calculate the Attack Strength of a crossbow.

Logical outgrowths of more complex Combat Results Tables should be the use of more than 6 outcomes. *Centurion* suggested cards for 10 possible outcomes. For those who are dice freaks, the 11 solutions of a pair of dice may appear attractive.

Of course, some will inevitably balk at the idea of a more complex Combat Results Table, Many find the rules too complex already. Obviously one must consider the audience to be reached. Wargame "freaks" will probably be more receptive than the casual player who finds <code>Stalingrad</code> rather challenging. However, the possible adverse reaction of wargamers is not any reason to avoid trying out something new. Certainly the <code>Blitzkrieg Module System</code>

must have seemed incredible to those who first assayed it, but once familiarity was gained, many of the same people certainly wondered how they managed to survive without it.

The point, then, is that more designers should bite the bullet and stop living with a game which is a valid simulation in all ways except how the battles come out — the crucial aspect.



S&T20, featuring Bastogne and Anzio Beachhead

Bastogne comes complete with 22x28" mapsheet, counters (unmounted) and other play-aids. It is a completely new game on the Battle of the Bulge using new and original movement, supply, combat and unit-breakdown systems. A very realistic, yet not overly complicated, game, Also contains variable Orders of Battle, thus making the game "self-balancing," Also in issue 20 is the Anzio Beachhead game, complete with 11x17" map, counters (unmounted) and other player aids. This game also contains numerous design innovations. In issue 20 are articles on the Luftwaffe Land Army (a complete survey with numerous charts, diagrams, etc.). Other features include letters, If Looks Could Kill (by Redmond Simonsen, on how to design, mount and cut your own counters), Diplomacy, Games and miniatures.

\$3.00, from Simulations Publications



S&T 29, featuring the USN (War in the Pacific) game

USN comes complete with 22x28" playing map, die-cut counters and other play-aids. USN is a strategic level game of the War in the Pacific between 1941 and 1943. It includes air, land and sea operations. The games uses completely new mechanics to reflect the interrelationships between the air, land and naval operations. There are three long games (two of 20 turns each, one of 81 turns). There are also four "minigames" covering the four decisive carrier battles of 1942. Special rules deal with flak, air-to-air combat, submarines, amphibious operations, logistics, base building, etc. Weekly turns are used. Also in issue 29 is an article on the War in the Pacific complementing the game. The article contains much of the research material that was used in the game. Also an article on the evolution of the German Blitzkrieg with an emphasis on the development of doctrine and equipment. Many charts and diagrams showing both equipment and tactical developments. Plus our regular features.



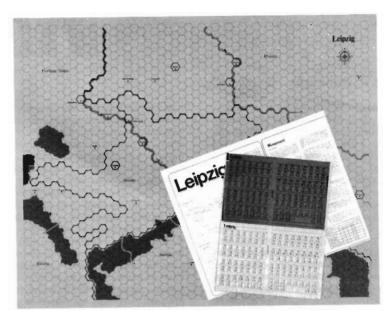
SECOND GENERATION. SIMULATION EDITION

Leipzig

The Battle of the Nations: 1813 Napoleon Against Europe

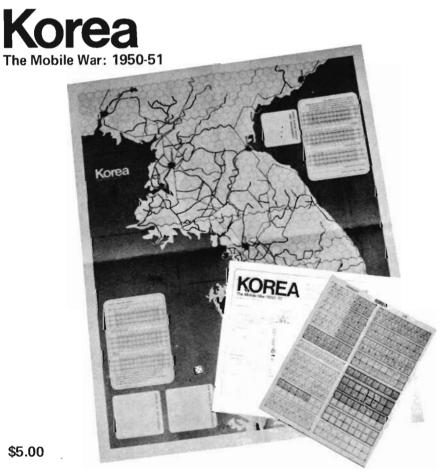
\$5.00

While the Battle of Waterloo in 1815 was the end of Napoleon, the Leipzig Campaign of 1813 destroyed forever the "Grand Armee" that Napoleon had created. The campaign was a "classic" in that both sides had different advantages and disadvantages. Napoleon had better generals and a "central position" (i.e., he was surrounded on three sides). The Allied armies were larger and had greater resources in replacements and supplies. The game Leipzig re-creates all of these conditions, as well as many others typical of warfare during this period. Each of the major commanders of both sides is assigned a value which can be added to attack or defense. The French values, particularly Napoleon's, are higher than the Allied. The fact that losses in these campaigns due to forced marching were higher than those caused by combat is also included in the game.



Combat is handled in a unique manner. As the game uses 7 km hexes, attacks from different hexes cannot be combined (due to poor communications and the short range of weapons). But unlimited stacking is allowed when "concentrating" for a battle. This requires the use of supplies, as does combat if you wish to get the most out of your units. The units vary in size from division to "army" (six divisions) and are interchangeable with each other. The larger units are much stronger, but also much

slower, than the smaller ones. Mechanically, Leipzig is the most accurate strategic game on the Napoleonic period available. Leipzig is actually a series of eight games. Seven cover the two major portions of the 1813 campaign; the "Spring" campaign when Napoleon moved into Germany with his new "Grand Armee," and the "Summer" campaign which ended in the Battle of Leipzig. Five of these are "What If?" games. The eighth game combines both campaigns into an "1813" game.



The First Edition of Korea was published in early 1970. The game had many flaws, all of which were corrected in this Simulation Edition. The map is generally the same as the First Edition, although redone in a more orderly and attractive fashion. The rules folder contains the thoroughly revised rules as well as the set-up charts for the three main games in Korea (Invasion: 25 June to 21 September 1950, Intervention: 26 November 1950 to 27 January 1951, and Stalemate: 28 January to 23 June 1951). Plus, of course the rules for the Campaign Game (21 June 1950 to 23 June 1951). Finally, as in all Simulation Editions, there are the die-cut counters representing the American, Commonwealth, South Korean, Turkish, Phillipino, North Korean and Chinese units that participated in the campaign, as well as fortification counters, naval units and supply counters. The rules were revised somewhat (stacking is now allowed, although only two units per hex), but more often they were clarified and cleaned up. The supply rules are now spelled out without ambiguity and in great detail. In addition, special rules were developed (and in some cases improved from the first edition) to reflect the special characteristics of each campaign. Such as, for example, the lightning-like infiltration tactics used by the Chinese infantry armies in the Intervention game. The game uses weekly turns. A double impulse movement system is used by all units. Game length varies from nine to twenty-one turns, although the campaign game is 52 turns long. A unique replacement system makes it vital to prevent units from being cut off and destroyed, otherwise the shattered unit cannot be brought back

Manpoweri

By James F. Dunnigan

Are wars fought by men with weapons or, rather, with men with weapons? The answer lies somewhere in between, with the battles being fought (conducted) by a select handful of men while the actual bloodletting is accomplished with both men and weapons. Thus did man become a cipher in 20th century warfare, alongside such stolid and unfeeling articles as rifles, field howitzers and locomotives.

Pre-1914 governments realized that a possible key to victory in war would be large masses of prepared ("trained") manpower. What they failed to realize was that the recent phenomenal increases in weapons' firepower made the Napoleonic "nation in arms" obsolete. Ammunition could kill men, while men alone could not reciprocate. Ammunition could be produced and "delivered" (via howitzer or machinegun) faster than men could be trained (a much misused word) and put into what quickly became known as the "killing zone." It's no wonder that living infantrymen soon became known as "cannon-fodder" or "bodies".

This is not to say that men armed with powerful weapons, and well aware of their own and their weapon's limitations and potentialities, could not accomplish what they set out to do: to destroy a similarly armed and motivated army. A smaller German force did this to a larger Russian one at the Battle of Tannenburg. But why could not a larger German force in better circumstances accomplish this same thing in the West? The main reason, although there were many others, was density. Literally the number of men per meter of front. But before this lethal density

could be achieved, it was necessary to evolve a system which could provide the huge armies without bankrupting the governments involved. The solution was provided with the introduction of the reserve system.

The "system" of reserves was an innovation when the notion that "All dwellers in the State are born defenders of the same" (1) was given its modern precedent in the nationalistic "nation in arms" resulting from the French Revolution. A lasting system was first developed by the Germans (Prussians) and, after having seen it used so successfully against them in 1866 and 1870, by the Austrians and French, also. Most other major powers soon followed suit, thus providing for a manpower buildup between 1870 and 1914, as well as an arms race.

The principle behind the reserve system was quite simple. First you established your army at a certain level, say 1% of the total population (2). Thus, in 1870 the strength of the German Army was set at 400,000 in peacetime. Every man was liable to three years' active duty and nine years in the reserves. Only some 70,000 of these were long-term service men, the rest being the citizens fulfilling their three year service "obligation." But under these circumstances only some 110,000 men were needed each year. At the same time, some 300,000 men became available each year. Some of these extra men could be eliminated by enforcing more stringent service standards with regard to physical and mental fitness. For the most part, however, many men simply did not serve, although all were liable in times of war. Regardless, under the above system, the active army had a reserve three times its peacetime strength to back it up if war came. A further embellishment was the custom of maintaining units at half-strength in peacetime. When war came, it took but a few days for the men who had served in these units within recent years to return to them. Thus, this army of 400,000 in peacetime was but the skeleton of a 780,000 man wartime force. This still left 600,000 "trained" men available, plus all the others who had thus far escaped service.

Such a system could, in theory, enable a numerically inferior nation to economically raise a more powerful army than her more populous neighbor. Unfortunately, the nation which made best use of the system was also one of the most populous — Germany. France, with a smaller population, still smarted over her defeat in 1870 and wished, with her inferior population, to raise an army larger than that of the Germans. The efforts of the French to catch up with and surpass Germany in a "manpower" race from 1870 on are shown below.

France was never able to catch up with Germany in terms of trained manpower reserves, mainly because of Germany's far higher population (in 1914, 67 million to 36,6). Actually, this was not the "fatal" part of the manpower race. Giving men a military "experience" was not enough. Trained masses of men were relatively worthless: organized units of well-armed men were what counted. It was for this reason that the "active" army units were kept pretty much at half strength in peacetime, for they were involved in little more than training new recruits.



n World War I

GERMANY

year	Active	Res	erve
	(20-23)	(24-32)	(33-42)
1875	400,000	900,000	900,000
1888	427,000	900,000	900,000
1890	468,000	920,000	900,000
	(20-22)	(23-32)	(33-42)
1894	486,000	980,000	900,000
1898	557,000	1,500,000	900,000
1900	574,000	1,600,000	920,000
1905	584,000	2,100,000	960,000

FRANCE

year	Active	Reser	ve
	(21-26)	(27-26)	(37-43)
1875	400,000	120,000	0
1888	400,000	400,000	0
	(21-24)	(25-37)	(38-47)
1890	420,000	440,000	300,000
1894	453,000	700,000	300,000
1898	460,000	1,100,000	340,000
1900	470,000	1,200,000	460,000
	(21-23)	(24-41)	(42-47)
1905	480,000	1,800,000	240,000
	(21-23)	(24-38)	(39-49)
1912	567,000	1,500,000	800,000
	(20-23)	(24-35)	(36-48)
1914	827,000	1,400,000	1,080,000

(Numbers in parentheses indicate age of troops.)

When war came, France found herself at a disadvantage with regard to units in the field. This was not the fault of too little available manpower, but, rather, one of organization.

There were other, less salient factors affecting the quality of available manpower. First in importance was the quality of the manpower itself. In countries such as France, Germany, England and the others of Western Europe, the state of literacy and health were relatively high and equal. In countries such as Italy, Austria and Russia, the levels of both health and literacy were lower, but not fatally so, for only Austria had severe demands on her manpower. The Austro-Hungarian Empire was a conglomeration of basic groups: German, Magyar, North Slav (Czech, Slovene, Pole, Ukranian) and South Slav (Serbs, Croats, Albanians, and others). The Germans ran the show with a strong assist from the Magyars, but here unity really ended. The only thing the soldiers had in common was the uniform they wore. The Russians also had a problem with "ethnic mix" but these were a minor irration when compared with their command problems. A unique problem of the Russians was one of availability of manpower for quick concentration. No other power had sufficiently wide territories or terribly underdeveloped railways to face this problem.

Incidental problems with the manpower pool aside, the reserve system did have one major drawback — age. The men, once trained, began to grow old and invariably lost their military skills along with their youth. In recognition of this problem, the pool of trained manpower was divided into three groups. The first consisted of those currently undergoing

training: the active army. The second group consisted of those only a few years out of the service who would be called back into their old units in order to fill them out in wartime. The third group consisted of the older reserves who were usually formed into units also. Some of these units would be "stiffened" with a percentage (usually not more than 20%) of veteran or active troops so that the larger reserve units could be used alongside the active army units. Men near the end of their service "obligation" were usually detailed to form small units for guarding sundry rear area installations. The surplus of the younger reserves constituted the "replacement" pool from which battle losses in the fighting units would be made up.

While all nations using the reserve system suffered from the problem of aging reserves, France suffered worst of all because of her attempt to outstrip Germany, which had nearly twice as many people, in a manpower race. Each nation had a certain amount of men coming of age each year for military service. Although the birthrate varied somewhat, the yearly "class" was usually a fairly fixed proportion of the national population (3). If one nation with a population of 37 million. such as France, wished to maintain an army equal to a nation of 67 million, such as Germany, the smaller nation would have to be less discriminating in choosing its recruits. As an example, let us use the Class of 1912 in both Germany and France. This class amounted to some 350,000 "available" (4) men in France. France had a two year active service obligation in that year, thus its active army of 567,000 men, less some 70,000 regular NCO's and officers to hold it together, needed



250,000 men yearly to keep its ranks filled. Thus, in the class of 1912, five out of every seven men would serve. In Germany, the class of 1912 came to 600,000 available men. Germany also had a two year obligation and her 727,000 man army needed 300,000 new men yearly. Only one man in two would be called, providing for much greater selectivity.

The class of 1912 would begin training in the Fall of 1912 and be "ready for mobilization" by the Spring of 1913. They would assist the regular cadre in training the class of 1913 the following year, and, had not war broken out in mid-1914, they would have been released from active service in the Fall of 1914. It usually took two to three of these released classes to bring the army up to strength in wartime. The rest would form the reserve units, and it was here that the French again mismanaged their manpower pool.

Only during the Napoleonic period had France relied on a civilian army. After the disaster of 1870, she was forced to adopt the reserve system. This was done reluctantly and not very efficiently. Initially the service was for five years, with one-half of the year's recruits being allowed to get off with only one year's service. This gave France a very large peacetime army, while not disrupting the lives of too many men with military service. However, it did not produce a large pool of reserves - this was to prove the decisive operational element of the 1914 campaign. By 1889 France had rectified her error with regard to large yearly classes of recruits, and was producing reserve troops on much the same level as Germany. The "war fever" of the late 19th and early 20th centuries produced an intensified manpower race. Germany had the edge on this race, as had been mentioned earlier, and managed to maintain more and younger men in her reserve

By 1914, Germany had 2.3 million men between the ages of 23 and 32 in her reserve pool for reinforcement of active army units and the formation of combat units of reserves. The French reserves, 1.4 million in number, were between the ages of 24 and 35. The secondary reserve pool, which provided rear area security and second line combat units, consisted of 1.4 million men between the ages of 33 and 42 for the Germans, while the French had but 1.08 million between the ages of 36 and 48. The French, for this and a number of other reasons, did not place as much faith and reliance on the reserves as the Germans,

There never was any possibility of a manpower shortage during the decisive 1914 campaign. The French kept some 600,000 men available as combat replacements. A man could be suitably trained for combat in two or three months, thus with only some 55% of this replacement pool expended in early October, the French still had time to train more replacements. The same applied to Germany, even though she put far more men into reserve units - 100,000 of her replacements were organized into units and were eventually used as such. As was noted earlier, Germany had far more untrained, and thus uncommitted, men on which to draw than France.

The manpower position of all the contending powers in 1914 was as follows:

COUNTRY	POPULATION	ACTIVE ARM
Germany	67,000,000	761,000
Aust-Hung	51,000,000	478,000
Russia	164,000,000	1,445,000
Serbia	4,000,000	52,000
Montenegro	400,000	2,000
France	36,600,000	827,000
England	46,000,000	247,000(a)
Belgium	7,500,000	48,000
Holland	6,000,000	32,000
COUNTRY	TOTAL MEN	TRAINED
	AVAILABLE	MANPOWER
Germany	9,750,000	4,400,000
	(17-45)(b)	
Aust-Hung	6,120,000	3,000,000
	(19-42)	
Russia	17,000,000	6,000,000
	(21-43)	
Serbia	440,000	300,000
	(18-50)	
Montenegro	60,000	60,000?
	(18-62)	
France	5,940,000	3,400,000(c)
	(20-48)	
England	6,000,000(d)	660,000
•	(20-40)	•
Belgium	800,000	360,000
	(19-32)	·
Holland	800,000	300,000
	(21-40)	
COUNTRY	FIELD ARMY	
Germany	2,147,000	
Aust Hunn	1 220 000	

COUNTRY	FIELD ARMY
Germany	2,147,000
Aust-Hung	1,338,000
Russia	3,400,000
Serbia	247,000
Montenegro	60,000
France	1,800,000
England	100,000(e)
Belgium	160,000
Holland	100,000

NOTES:

- (a) Half of these were stationed overseas in the colonies
- (b) ages of men in manpower pool
- (c) Includes 87,000 native and Foreign Legion troops
- (d) No actual reserve system set up; these were simply the men available within the age limits shown
- (e) A reserve system had been set up but was not fully functional, yet

The adoption of the reserve system by most of the major European powers gave them all, with the exception of Britain, sufficient manpower reserves to carry out a protracted war of attrition. While it was not manpower itself that brought about the deadlock in the west, the amount of manpower available, coupled with innovations in weapons and (one might say the lack of innovations) in tactics, brought about the deadlock. But even the man-to-meter-of-front ratio could not have been enough to save the French had they been any more lackluster

in their attitude toward the efficiency of reserve formations. Their propensity to relegate nearly all reserve units to rear area duties very nearly gave the Germans the elbow room and numerical superiority on the firing line they needed to achieve victory. The lack of a reserve system in England, and its belated introduction in Belgium and Holland made France's position more precarious. On the Eastern Front the mutual inefficiency and complementary short-comings of Russia and Austria-Hungary assured a stalemate. In the West varying degrees of competent efficiency and shortsighted obtuseness led to a very fluid situation; a situation in which the war may very well have been decided, as so many. predicted, in six weeks (6).

NOTES:

- (1) Quoted from Scharnhorst, the "founder" of the modern German military system during the early 19th Century upheavals in Germany, due to the success of Napoleon and his original French "reserve system,"
- (2) This was the rule of thumb initially employed by many European powers, particularly the Germans.
- (3) It fluctuated between 2% and 4% of the population each year. Thus, the available males would come to between .8% and 2% yearly.
- (4) There were exemptions allowed for students, clergy, critical occupations and certain others. Exempted or deferred categories varied, of course, from country to country.
- (5) The German troops were broken down as follows: 4 years in the Reserve these troops would fill out active units and form new ones in the event of war; the next six years were spent in the inactive reserve, to be used as replacements, etc., and finally Landwehr, or second line units. The remaining time was spent in a totally inactive reserve with no definite duties in wartime. The older men would probably end up with the home guard or Landsturm, while the remainder, the younger ones, would probably end up at the front.

The French held men in the reserve for ten years, thus having entire units of reserves with men considerably older than similar German units. A further seven years would be spent in the inactive reserve. These men would be used as replacements for reserve units or even active ones. The oldest category of men would again be the "home guard" or territorial troops.

As the reserve classes became older, their numbers decreased, as more and more of them received exemptions for physical deficiencies,

(6) As our topic is manpower, it would be illustrative to show what toll the war of attrition took on the manpower resources as shown in the preceeding charts:

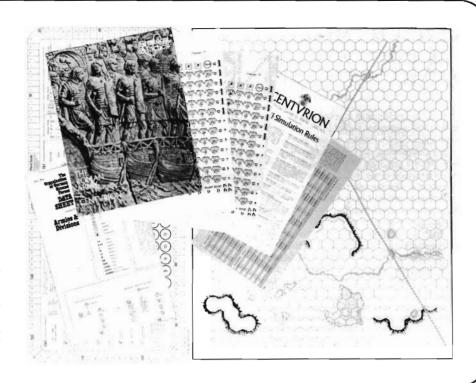
COUNTRY TOTAL MEN (% CASUALTIES) AVAILABLE

Germany	9,750,000	(55%)
Austria	6,120,000	(64%)
Serbia (a)	2,200,000	(52%)
France	5,940,000	(75%)
England	6,000,000	(40%)
Belgium	800,000	(51%)
Russia	17,000,000	(43%)

S&T 25, featuring the Centurion (Tac 13) game

The Centurion game is similar to Tac 14 (S&T 22) and covers the period (106BC-552AD) in which the Roman legion was the dominant military power. The game is tactical in scope (units of some 500 men with about 100 meters to a hex). Unit types included cover swordsmen (Romans), barbarian infantry, spearmen, skirmishers (light infantry), light cavalry, oriental cavalry (mounted archers), and Byzantine Cataphrachts (professional heavy cavalry). Units are combined to form 17 scenarios, representing the most decisive battles of the period (from Numidia, 106BC to Busta Gallorum, 552AD). Special rules reflect changes in organization, doctrine, tactics and equipment. Also in issue 25 are articles on the Roman Army from 753BC to 1453AD and the second part of the series on the war in Russia (1941-5). This article covers the Organization of German Ground Forces. This includes a 22x28" sheet containing organizational data on all German units. The game has a 22x28" mapsheet, unmounted counters etc. Plus our regular features

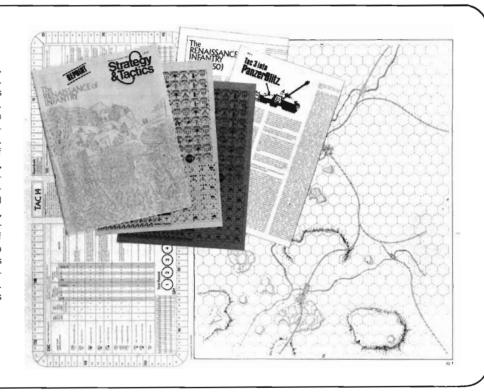
\$3.00, from Simulations Publications



S&T 22, featuring the Tac 14 (Renaissance of Infantry) game

Tactical Game 14 contains a 22x28" map unmounted counters and other play-aids. The game is tactical (each unit represents some 500 men, each hex some 100 meters). It covers the period 1250-1550AD when infantry replaced the mounted "man-atarms" ("knight") as the decisive weapon. Each unit represents a different type of soldier (pikemen, light and heavy cavalry, long- and cross bowmen, artillery, arquebusiers, etc.) These are combined to produce 20 different battles of the period (from Adrianople, 378AD to Pavia, 1525AD). Special rules have been developed to re-create the unique conditions of tactical level warfare. Also in issue 22 is an article on the Renaissance of Infantry, as well as a "Profile" article on the development and use of the German Me-109 fighter. Introduction of GAGE game reviews plus regular features.

\$3.00, from Simulations Publications



COUNTRY	KILLED	SEVERE(b) WOUNDS	LIGHT(c)
Germany	17%	16%	22%
Austria	15%	14%	35%
Serbia	35%	15%	02%
France	24%	12%	39%
England	13%	10%	24%
Belgium	34%	05%	12%
Russia	13%	06%	24%

NOTES:

(a) total male population

(b) wounds which prevent a man from returning to service, usually loss of a limb or similar incapacity

(c) other wounds. Many men received wounds more than once, but this is counterbalanced, to some degree, by the numbers of wounds which were not reported. Also not included are non-combat casualties, which are of an even milder severity than light (combat) wounds,

BIBLIOGRAPHY

De Nederlandsche Strijdmacht, Kooiman Direct and Indirect Costs of the Great World War, Carnegie Endowment for International Peace (E.L. Bogart)

The Great War, Vol. II, G.H. Allen, et al. Official German Documents Relating to the World War, Carnegie Endowment (von Monteglas)

Military History of the War, McEntee

SOLITAIRE WARGAMING

by Jay Richardson

One of the interesting and complex problems confronting the wargamer today is how to play wargames solitaire. I consider myself an expert on solitaire wargaming, as I have been playing solo ever since I got into the hobby. In order to comprehensively cover the problem of how to play solitaire wargames, I will first discuss the methods of which I presently know, and then discuss my own methods.

Chess, which I consider a wargame of sorts, provides perhaps the best known method of solitaire wargaming. This method consists of simply giving a problem or "puzzle" to the player. There are many books which give nothing but chess problems in the form of a diagram of a chess board which has a certain set-up. A question is then asked of the player such as "how many moves will it take Black to achieve checkmate?" A good example of this, as applied to more conventional wargames, is the contest in each issue of the Avalon Hill *General*

The big problem with this form of solitaire wargaming is that one person's idea of the correct solution may not (and is not likely to be) the same as another's. A perfect example of this is Avalon Hill's *Stalingrad* contest of a few months back. The solution Avalon Hill gave fulfilled the necessary requirements, but no German in his right mind would ever make a move like that in an **actual** game!

The situation can be clarified by separating the problem into two classes: tactical and strategic. The Avalon Hill problem was a tactical one and they gave a tactical answer. Why, you may ask, are there no strategic problems or rather, tactical problems with strategic limitations so that it would be likely that a problem situation would occur in an actual game?

To have this kind of problem, it would be necessary to define the strategy being used, and there are probably as many different strategies as there are players of a given game.

Another form of solitaire play is the type included in the *Grunt (S&Tno.26)* rules. This is also the type used by many miniatures players. Basically, it consists of roughly predetermining any and all enemy action, or having a set of cards which give the general enemy movements for each turn. Although they are gallant tries, in my opinion a first grader could supply greater opposition and they will fail to give any satisfaction to the advanced wargamer.

In explaining why the *France, 1940 (S&T no.27)* game did not have a solitaire version, the *Strategy & Tactics* staff made the statement that solitaire wargaming is largely a matter of attitude. They are most certainly correct, as you will see as I discuss my methods of solitaire play.

The first thing to do is to decide what you want a solitaire wargame to do for you. Decide this right now, before reading any further.

If you decided that you want a solitaire wargame to provide all the competition and pressure of a regular two-player game, with the exception that there is no opponent, you might as well forget about playing solitaire wargames in any form other than the puzzle type.

If, on the other hand, your view is similar to mine, you may be in business. I take the view that any solo play in any game (wargame or otherwise) should, first of all, increase the ability of the player in that game, with the secondary view that it should provide spectator entertainment for the player.

Anyone who scoffs at the first point has a standing invitation to come and test the result of almost daily solitaire play on my part.

The second point is, however, the important one. As far as the first point is concerned, if you do any solitaire gaming at all, you will gain in ability, whether you want to or not, but you must always take the role of spectator and be absolutely impartial in your play. I even go to such extremes as to go to opposite ends of the board rather than maneuver both forces from the same side of the board.

You can, of course, cheer and sympathize with one side as much as you want, but you must always play your best regardless of which side is moving. To help you in this at first, imagine you have just gone to a friend's house to play and you find that he and a third friend are in the middle of a game. The third friend then leaves and you take over his forces. Repeat this chain of thought at the beginning of each side's turn until you are able to play quite impartially.

Of course, there is no such thing as a "perfect" system, and to see the big problem in mine, do the following: when you become used to my system, pull out your copy of *Midway* or *Goeben* or some similar game. Once you try it, you will see what I mean. It is almost impossible to be fair with these naval games. Your only course of action is to forget about who wins or loses and make the battle interesting.

The problem experienced with naval games can be remedied by changing and/or adding rules, such as using a die roll for search procedures. I, however, do not recommend doing this since you are then playing a different game and therefore lose some of the "educational" value in solitaire wargaming.

I might also mention that the puzzle type of game can be used with any number of players whenever there is not enough time to complete an actual game, or when no one wants to play a full game. The procedure is simply to take turns setting up problems for the other people to solve. This can get very interesting.



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Questions concerning the rules of play and game procedure will be answered if submitted in the following manner:

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Introduction to Advanced Napoleonics by Fred H. Vietmeyer

This is the third and final installment in Mr. Vietmeyer's series. The first and second installments appeared in S&T nrs. 15 and 25.

Although it should be obvious, we frequently forget that about 1/3 of the war game players who use models are aggressive people. The balance are artists who like to paint uniforms. dioramists who like the splendid scenery layouts and actors who like the pageantry, plus historians who like to re-enact a moment out of the past - like a person born out of his time.

These latter people are sometimes appalled at the loud altercations that can occur at a wargame, but it must be remembered that pure wargamers are an aggressive breed, and it only takes two to add extra excitement to an otherwise civilized affair

So let us look at what we can do to eliminate these problems and speed up the game.

- 1. In large games, consider dividing the game into sub-divisions, or even separate boards, each playing at their own rate. This eliminates delays. Idle people cause mischief.
- 2. To reduce the number of people for each board, separate boards can be put in different rooms. A rule can be used to keep players

from one room from talking while visiting boards with which they are not involved.

3. We have found that after a certain number of hours of play, fatigue sets in and even little things can cause friction. When we start a game at 10:00 AM, with one hour off for lunch and discussions, if the game has not been concluded on the 4:00 PM turn or other agreed upon time, that turn is concluded and a combat effectiveness count is made by both sides (considering CE terrain and objectives, if any). If both sides are still above 75% of their army strength, then the battle is a draw. If only one side is dropped below 75%, it loses the battle, such as the Russians at Eylau and Borodino.

the current CE counts are divided by the original army strength. The side with the highest percentage remaining wins. The opposing side retreats slowly in good order in the oncoming darkness.

4. A question frequently asked is what is a fair penalty for infringements, interference, etc. We allow a free artillery shot of the enemy supreme commander's choice, prior to the next turn. It is not too severe, yet keeps things in line.

5. How can you resolve rule disputes without an umpire?

All disputes should be discussed only briefly by the involved persons and no one else. If the situation cannot be resolved quickly, the players will explain their position to their respective generals. The two supreme commanders will then see if they can arrive at a decision by themselves, Finally, if necessary, the host will call for an end to the discussion and a die cast will decide and the result will be valid for the balance of that game, After the game, when all emotion has subsided, the matter can be resolved, perhaps at a later date.

Finally, let me change the subject. Having completed your basic armies, you may well be preparing to venture into other nationalities. but are having a problem finding coloring information for the uniforms.

Well, your search is over. Finally a two volume

set has been released which has just about

If both sides have fallen below 75% CE, then

everything: L'Uniforme et les Armes des Soldats du Premier Empire by Liliane and Fred Funcken, Caster man Publisher, 1969. Volume I as 74 pages in full color, showing over 300 uniforms. And Volume II, believe it or not, essentially duplicates the effort - both copies for an approximate total cost of \$14.

French, British, Prussian, Russian, Austrian, Spanish, Swedish, etc. are depicted. The text is in French, but this is really hardly any problem because country names and the military units are easily discernible.

Kursk

Operation Zitadelle, 4 July 1943



Stalingrad was not the decisive battle in the east during WW II. Although the Germans lost 24% of their divisions in Russia during that campaign they not only survived it, but were again threatening to overrun the Russians again in the Spring of 1943. But they didn't, An attack in May would have had a 50/50 chance of success. There was no attack. An attack in June would have been even more successful. There was no attack. An attack in July against the fully-prepared Russians was suicide. That's when the Germans struck, with 74 divisions, 22 of them armored or motorized plus three heavy Tiger tank battalions, a heavy Panther tank brigade and a battalion of heavy Ferdinand self-propelled 88mm guns. But the Russians had over 200 divisions, 25 of them armored, plus numerous artillery, anti-tank and cavalry units. They had also fortified the target of the German offensive, the Kursk salient, with three fortified zones. The Germans were going for broke.

Kursk is six games in one. Six different Orders. of Battle are provided, covering the situations in May, June and July 1943. Two reductions of the playing board are given showing historical placement of units for the original July attack as well as the August Russian Summer Offensive. The last scenario shows what would have happened if the Germans had not attacked and simply waited for the Russian Summer Offensive in July. Kursk is a division (for the Germans)/Corps (for Russians) scale game. Each hex equals 16 Kms. Each turn equals two days. Each game is six turns long. Motorized units use a double movement phase system. Tactical air power is used.

\$5.00

BIAS FOR BETTER BALANCE D. KEITH BAKER

It almost seems axiomatic that wargamers be dissatisfied with the play balance of their games. Most have their own method for improving these real or imagined imbalances. These methods are known to range from a slight liberalization of the rules to the surreptitious introduction of loaded dice.

I, too, have my own favored method of establishing play balance. All that is needed is a pair of dice, a rule of correspondence, and a little time. Oh, yes, you have to know how much you want to bias the game and for which side.

It is perhaps easiest to illustrate the method by means of an example, rather than attempting a steril verbal explanation. Let us assume that you are dissatisfied with the play balance of *Stalingrad* and that you figure playability would be improved by biasing the game in favor of the Germans. Actually, the following method works equally well with any single die combat results game and can be easily modified to bias any of them.

Step 1 Determine the percentage bias you intend to introduce. Let us assume that you decide the Germans should have a 10% edge in both attack and defense.

Step 2 Convert the single die combat results table to a two dice table. Exhibit 1 shows what the Stalingrad table looks like after it has been expanded to a two dice table. With the single die table, any presentable modification must be in terms of 1/6 or multiples thereof. By utilizing a two dice table, you are allowed to make modifications ranging from 1/36 to 6/36. (See the chance columns in Exhibit 1 for the probability of making any single roll of the dice)

Step 3 Establish a rule of correspondence for both the attack and defense. A rule of correspondence is merely a ranked order of preference of all possible results in rolling of a fight.

For example, we can assume that the Germans in any attack will prefer most to eliminate the enemy and least prefer to be themselves eliminated. When on the defensive it is safe to assume that the Germans will always prefer the opposite results. The following chart shows one method of ranking a rule of correspondence.

ORDER OF CORRESPONDENCE

Preference	Attack	Defense
1	D eliminated	A eliminated
2	D back 2	A back 2
3	Exchange	Exchange
4	A back 2	D back 2
5	A eliminated	D eliminated

Step 4 Determine the number of percentage points needed to effect the chosen bias. Exhibit 1 has eleven columns used for resolving combat. Each column has a probability of 36/36 or 100% of determining results. All eleven columns have a probability of 396-396 if you care to add them up. In order to bias the odds by 10%, we need to add 39.6 or 40 points into the combat results table. *Step 6* will show us how to do this.

Step 5 Allocate the bias points as equally as possible among all of the columns in the expanded combat results table. If all of the columns do not have an equal number of bias points (they probably won't), allocate the extra points to the center column (Exhibit 2 shows the suggested distribution of added bias points for our **Stalingrad** example).

Step 6 Increment the bias by applying the rule of correspondence, In order to increment the bias, you need merely move up in rank (according to the rule of correspondence) precisely the number of bias points allocated

for each column. In general, I try to improve the worst possible alternative, i.e., the one with the lowest rank. For example, let us assume that you have decided to add four bias points to the 1-1 column for an attack situation. According to Exhibit 1, a roll of five has a probability of 4-36 and would mean that the attacker is eliminated. In an attack situation "A" eliminated has a rank of 5. We change the results for a roll of five to "A" back 2 and thus add four bias points to the 1-1 column. We follow analogous steps for all columns in the table and thus produce a "German Attack Combat Results Table" which is biased by 10% in favor of the Germans, Exhibit 2 shows a completed table, In order to produce a table which is biased in favor of the German defense, we simply follow the same steps with the defense rule of correspondence. Exhibit 3 shows a completed table which is biased by 10% in favor of the German defense.

Step 7 Play the game. The Germans will use Exhibit 2 to resolve any of their attacks and the Russians will use Exhibit 3 to resolve their attacks. Otherwise the rules of the game remain unchanged. The only difference is that the game is now biased in favor of the Germans by 10%.

As you can see, it is perfectly possible to bias the game to whatever extent you feel necessary in order to improve play ability. I have, myself, used the tables many times and personally feel that they greatly improve the play balance of **Stalingrad**. The use of these tables does not automatically result in a victory for the Germans, It is possible (but rather unlikely) to play an entire game and never roll any of the numbers which give the Germans an edge, But, in the long run, I think that you will find that the use of these tables does improve the German's chances by about 10%.



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A Brief, Physical Description of Simulation Series Games

The physical quality of Simulation Series Games is very similar to that of the games included in issues of Strategy & Tactics. The primary differences are (1.) the map is produced on heavy cardstock as opposed to the lightweight stock used in magazine games, (2.) a die is included and (3.) the map is only folded twice (down to approximately 11" x 14") and the game is shipped in a plain envelope with a corrugated stiffener (unboxed). Usually, Simulation Series games have a greater amount of auxillary tables and game charts included with them.

					EXHI	BIT 1						
			Ex	panded C	ombat Res	sults Table	(Unbiase	d)				
Die Roll	Die Chance					С	ombat Od	ds				
		1-6	1-5	1-4	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-1
2	1-36(2.8%)	Ab2	Ab2	Ab2	Ab2	Ab2	Ab2	Ex	Ex	Ex	Db2	Dt
3	2-36(5.6%)	Ab2	Ab2	Ab2	Ab2	Ex	Ex	Db2	Db2	Db2	Db2	DŁ
4	3-36(8.3%)	Ae	Ab2	Ab2	Ae	Ae	Ae	Ae	De	De	Db2	De
5	4-36(11.1%)	Ae	Ae	Ae	Ab2	Ae	Ae	Ab2	Db2	De	De	De
6	5-36(13.9%)	Ae	Ae	Ae	Ab2	Ae	Ae	Ex	Ex	De	De	De
7	6-36(16.7%)	Ae	Ae	Ab2	Ae	Db2	De	De	De	De	De	De
8	5-36(13.9%)	Ae	Ae	Ав	Ab2	Ab2	Db2	Ex	Ex	Ex	De	De
9	4-36(11.1%)	Ae	Ae	Ae	Ab2	Ex	Ex	Db2	Db2	Db2	De	De
10	3-36(8.3%)	Ae	Ab2	Ab2	Ae	Ab2	Ab2	Ae	De	Db2	Db2	De
11	2-36(5.6%)	Ab2	Ab2	Ab2	Ab2	Ab2	Ab2	Ab2	Db2	Db2	Db2	Dt
12	1-36(2.8%)	Ab2	Ab2	Ab2	Ab2	Ab2	Db2	Ex	Ex	Db2	Db2	Di
Die Roll	Die Chance					(Combat Oc	dds				
		1-6	1-5	1-4	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-
2	1-36(2.8%)	Ab2	Ab2	Ab2	Ab2	Ab2	Ab2	Db2	Ex	Db2	Db2	D
3	2-36(5.6%)	Ab2	Ab2	Ab2	Ab2	Ex	Ex	Db2	De	De	Db2	D
4	3-36(8.3%)	Ab2	Ex	Ab2	Ae	Ae	Ae	De	De	De	De	D
5	4-36 (11.1%)	Ae	Ae	Ab2	Ab2	Ab2	Ab2	Ab2	Db2	De	De	D
^	5-36 (13.9%)	Ae	Ae	Ae	Ab2	Ae	Ae	Ex	Ex	De	De	D
6	6-36(16.7%)	Ae	Ae	Ab2	Ae	Db2	De	De	De	De	De	D
7	12 22 22 22 22 22 22		Ae	Ae	Ae	Ab2	Db2	Ex	Ex	Ex	De	D
7 8	5-36(13.9%)	Ae	0.000									
7 8 9	4-36(11.1%)	Ae	Ae	Ae	Ex	Ēx	Ex	Db2	Db2	Db2	De	215
7 8 9 10	4-36(11.1%) 3-36(8.3%)	Ae Ae	Ab2	Ab2	Ab2	Ae	Ab2	Ae	De	Db2	Db2	D
7 8 9 10 11	4-36(11.1%) 3-36(8.3%) 2-36(5.6%)	Ae Ae Ab2	Ab2 Ab2	Ab2 Ab2	Ab2 Ab2	Ae Ab2	Ab2	Ae Ab2	De Db2	Db2 Db2	Db2 Db2	D
7 8 9 10	4-36(11.1%) 3-36(8.3%)	Ae Ae	Ab2	Ab2	Ab2	Ae	Ab2	Ae	De	Db2	Db2	D
7 8 9 10 11	4-36(11.1%) 3-36(8.3%) 2-36(5.6%) 1-36(2.8%	Ae Ae Ab2	Ab2 Ab2	Ab2 Ab2	Ab2 Ab2	Ae Ab2	Ab2	Ae Ab2	De Db2	Db2 Db2	Db2 Db2	De De Di

			Russi	an Attack	EXHI Combat I	BIT 3 Results Tal	ble (10% b	oias)				
				MAGG.		C	ombat Ode	ds				
Die Roll	Die Chance	1-6	1-5	1-4	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-1
2	1-36(2.8%)	Ae	Ae	Ab2	Ab2	Ab2	Ae	Ex	Ex	Ex	Db2	Db
3	2-36(5.6%)	Ae	Ae	Ae	Ae	Ab2	Ex	Db2	Db2	Db2	Db2	Db
4	3-36(8.3%)	Ae	Ab2	Ab2	Ae	Ae	Ae	Ae	De	De	Ex	Db
5	4-36(11.1%)	Ae	Ae	Ae	Ab2	Ae	Ae	Ab2	Db2	Db2	De	De
6	5-36(13.9%)	Ae	Ae	Ae	Ab2	Ae	Ae	Ex	Ex	De	De	De
7	6-36(16.7%)	Ae	Ae	Ab2	Ae	Db2	De	De	De	De	De	De
8	5-36(13.9%)	Ae	Ae	Ae	Ab2	Ab2	Db2	Ex	Ex	Ex	De	De
9	4-36(11.1%)	Ae	Ae	Ae	Ab2	Ex	Ex	Ex	Db2	Db2	De	De
10	3-36(8.3%)	Ae	Ab2	Ab2	Ae	Ab2	Ab2	Ae	Db2	Db2	Db2	De
11	2-36(5.6%)	Ab2	Ab2	Ae	Ae	Ae	Ae	Ab2	Db2	Db2	Db2	Db
12	1-36(2.8%)	Ab2	Ab2	Ab2	Ab2	Ab2	Ex	Ex	Ab2	Db2	Db2	Db
Added Bias	Points	3	3	4	4	4	4	4	4	4	3	3

By Jim Frediani

Sitting across from an old friend on a Sunday afternoon with the Chicago-San Francisco double-header blaring in your ear, you become amazed at the fact that when you pulled your units from the game you were playing out of one attack (it wasn't going fast enough) and threw them into a new, unplanned one, things didn't get any better, even though this was a better move. You go on to lose the game and wonder what you failed to read in the rules or Suggestions for Strategy which gave your opponent the edge (and the win). Then, next weekend, you pull a large portion of units away from a rapidly moving offense to speed up another. Immediately your planned attack bogs down, the other moves forward a bit, but now you have to run back and refuel the first one. Finally, some terrain feature or weather rule comes into effect and you're busted. Again, you hit the rule book,

Forget it, your problem isn't there. There isn't any "rule book." It is written down, but not in the language that is easily understood. And for a man who is interested in this stuff only as a hobby, why get technical? Beside, people do occasionally discover things for themselves and, after all, it is only a game. But the game would be so much easier to grasp if tactics were suggested along with the strategy.

The concept my friend above fails to grasp is that once you have committed yourself, no matter how foolish your attack now appears, nor how tempting another target seems to be, keep to your decision. Complete your task and achieve your goals, Why does this make a difference? I don't know, but from personal experience, I assure you, failure to abide by this does ultimately (save a drastic error by your foe) lead to your defeat in the given situation. Kursk is an object lesson in this, Håd Hitler immediately carried out his plans he

would have succeeded. His waiting merely hurt him. And this self-same mistake was repeated throughout the battle. But why isn't something like that explained in the Suggestions to new players of the game? There is no need to become overly technical, but a player would enjoy his activity if he understood why he had lost by his own error, not by a stroke of luck from the die.

What other helpful hints are apparent in games but not pointed out? The concept of "In masses, not driblets" has been so stamped in the minds of the world that game CRTs have been specifically designed to agree with it. 1914 varies from this lot in showing that an attack at the right odds with certain units will achieve a greater victory than one launched with too many units of the wrong kind. There is no way to get around this. Therefore, one is stuck with the "driblets" idea. But what else can this be compared to? First off, the more attacks you launch, the higher probability of success follows. Second, in games where you have armor, you should mass your armor. Used individually, these units are as worthless as Stalingrad 2-3-6 units.

When was the last time you launched a feint? Or how do you know when you should? The decision will have to be up to you. I usually use a feint against a semi-strong opponent who has mobile reserves, but not as mobile as my attacking units. For example, in *Stalingrad*, I would have my armor go via Brest to help take Kiev, then (only when I am guaranteed clear weather the next move), I swing back around and attack Minsk (as planned, even though there is a great temptation to continue the thrust into the South). Any Russian units switched to follow my strong armor are away from the battle for one turn. The reserves are committed, for he can not tempt fate while

wondering if I really will pursue the attack in that direction. If he was strong, though, I would be too busy to plan a feint of such a major level.

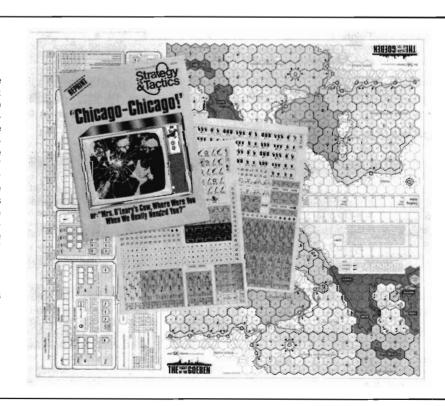
This points out another key idea — if in your power, reduce your opponent's mobility at every given opportunity. This includes the increase of your own ability to get re-inforcements and reserves to key areas in time to do some good. To do this you cut or control the railroads or highways in the country you are defending or attacking. You study the map and notice the key terrain features and key railway intersections. Controlling these lengthens the enemy's supply and reinforcement lines.

Another suggested idea to follow is to organize your units into a comprehensible OB. For the Germans in *Stalingrad* this is simple, but not for the Russians. When one has an organized OB (Divisions into Corps or Corps into Armies), it becomes easier to assign goals, to say these units will reach point X at turn Y, where one will garrison until the front is stabilized, while the other two assist with the continuation of the advance. This added touch of organization often helps you to realize which goals are going to be the hardest to achieve.

Some added ideas are not to let OB organization get too strict. Loss of units may well eliminate an Army from your OB. This does not mean that you should alter your goals. Also, when making a feint, attack with a small body of units (and hold the main force in reserve). Do not hold your feinting units on the line for too long a period. There is no point in losing good units just to perpetrate a hoax.

S&T 21, featuring The Flight of the Goeben game

There are actually four games in this issue (all with unmounted counters). The Flight of the Goeben (Strategic) contains two 11x17" maps, counters and other playaids. It involves the Allied search for the German battle-cruiser Goeben in the Mediterranean during August 1914. A unique "search" system, including "secret die rolls" for such things as objectives and victory conditions, as well as a realistic coaling rule make this a unique game. Also in issue 21 is a "minatures" game, Flight of the Goeben (Tactical). The Chicago-Chicago! game recreates the situation in Chicago during the August 1968 riots. Complete with 22x28" playing board, rules and play-aids. A fourth game, Invasion, is in the Games column. Also articles on the British army in North Africa, a review of the Test Series Games plus regular features.



Never shown are the offensive tactics for the defensive player. He must be as adept to offensive manuvers as his foe. First, counterattacks often take pressure off of certain areas in the line. This should be handled in several different ways. You may hold units in reserve for the purpose of counter-attacking a major penetration. You may also use the Yin-Yang Snake Theory. When the head is attacked, the tail replies (a two-headed snake). When the tail is assaulted, the head responds. This means that if the attacker does not have a well-balanced fighting force, he is liable to get nipped in the rear by a counter-thrust. A mobile reserve seems to work the best,

Second, the defender should realize which of his units (if any at all) are best suited for sacrifice. A sacrifice unit (under Avalon Hill Combat Result Tables) is best used in two ways: it slows up the advance and shortens the lines. 2-3-6 units in *Stalingrad* are excellent choices for the chopping block. They are easy to replace, and are worthless anywhere else.

Sacrifice leads us to the third point (besides don't sacrifice needlessly and try to give yourself a good chance of living). When you sacrifice a unit to shorten your front, you are doing what is called (in as many words) picking the spot where your opponent will

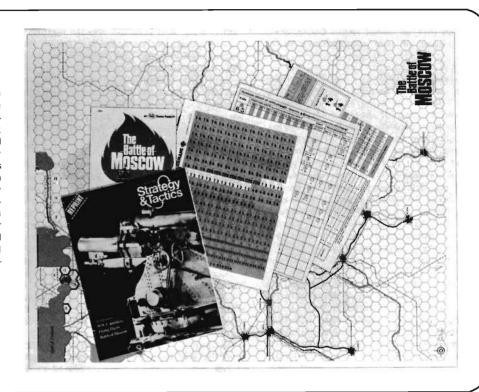
attack. You basically dictate your opponent's next move. When this is achieved, then your opponent is in hot water. You build up your units and he hasn't made any fantastic leaps over large pieces of ground.

These should (hopefully) be clear to the beginning player, the one who really needs to know whether or not he should særifice in a given situation (or who doesn't know a thing about særificing), or wonders why he blew the game, or how he was fooled by his opponent. Such ideas should be incorporated into somebody's suggested strategy, along with other concepts I've undoubtedly missed.

S&T 24, featuring the Battle of Moscow game

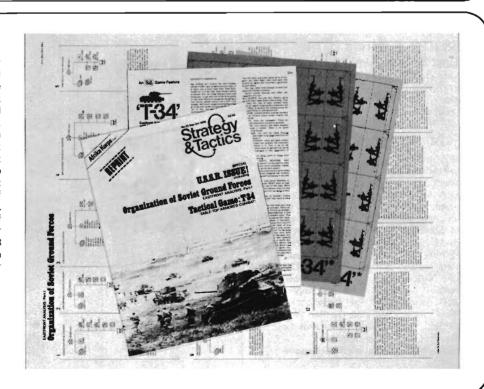
Battle of Moscow comes complete with 22x28" map, unmounted counters and other play-aids. The game covers the German campaign against Moscow in late 1941, as well as the Russian winter offensive. It's a division level game covering not only the Moscow front, but the Leningrad area as well. A unique movement/supply system recreates the physical restraints placed upon the Germans when they ran into the Russian mud and winter. Specially developed rules reflect the different characteristics of the two armies. Also in issue 24 are articles on the Flying Tigers (volunteer American pilots in China, 1941-45), as well as an extensive survey article on World War I artillery in the west. Plus our regular features.

\$3.00, from Simulations Publications



S&T 23, featuring the T-34 game

T-34 is a "miniatures" game that uses paper cut-out counters reggesenting platoon and company size units. No board is used. The subject is Russia, 1944. It's a somewhat different sort of game. If you want to find out what miniatures are like, try this game. Also in issue 23 is the first of our articles on the war in Russia (1941-45). This first article, on the Organization of the Soviet ground forces, presents data available in no other publication. A separate 22x28" sheet gives organization and equipment charts of all Soviet units employed during the war. The article itself goes into the "whys" of Soviet doctrine as well as giving such Order of Battle data as is available. Also in issue 23 is another North Africa article, this one on the German Afrika Korps. Plus our regular



Pass in Review

BOOKS ON THE CRIMEAN WAR by David C. Isby

More than a century after the event, the Crimean War is chiefly known for a disastrous cavalry charge and the suffering of the wounded. Yet there was more to the Crimean War than that, as several recent books, along with re-issues of then contemporary works show.

The Crimean War began in 1854, with Britain, France, and later Sardinia backing Turkey against Russia, in a war to maintain the European balance of power and keep the Russians from expanding into the Middle East. Although there was action in many places (Armenia, Rumania, Finland, Siberia, and even Alaska), the seat of the war centered on the Crimean peninsula, where the Allied armies landed and attempted to seize the Russian naval base of Sevastopol, which they did after several bloody battles and a terrible winter. Although Russia was defeated and the balance of power maintained, it was only temporary. as the events in southeastern Europe prior to 1914 were to show.

Although it was a rather indecisive war, the Crimean War is still an interesting area to the reader in military history. It had all the trappings of past wars, with colorfully uniformed troops formed into well-disciplined lines, and columns with flags flying and bands playing; but there were also hints of modernity in the form of breech-loading rifles, telegraph,

railroads, and war correspondents. Indeed the Crimea was part of the transition to "modern" warfare, and not an easy one for, although all participants in the war were resolute and brave, none were competent, and the system that allowed an army to fight without tents in winter, or sent the Light Brigade to its destruction through a chain of errors, was merely indicative of the state of the art of war at that time.

In recent years, the Crimean War has had several works devoted to it. These fall mainly into three categories. First are those devoted to recounting the entire war. Then there are others whose primary concern is with a certain portion of the war, either an event or personality. And there are also the reprints of contemporary accounts, which, although they mainly fall into the first category, should be examined by themselves, Although the modern works differ widely in most aspects, they have all drawn upon the same sources, and often upon each other as well, so the same territory is covered several times. It is how well each book covers its territory that this review is concerned.

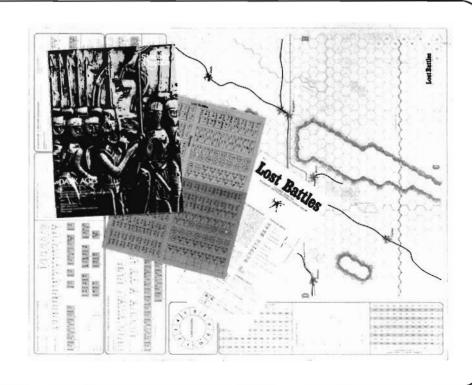
Most recent of those books concerned with the entire war is John Selby's Balaclava: Gentleman's Battle. Despite its title, it attempts to cover the entire war, and is a failure at this. The book, although fairly well written, gives one little factual data. There is an almost total dearth of the "hard" data, such as weaponry, tactics, orders of battle, and organizational details that wargamers find useful. Most of the descriptions are given from first person accounts, and the action often "focuses" on the narrator to the exclusion of the important elements in question, as well as to the confusion of the reader. The chapter on the Battle of Inkerman is especially inadequate in this respect. It does, however, try to see some of the war from a Russian standpoint, and gives some credit to the part played by the

French and Sardinians, which other works often fail to do. The maps and numerous illustrations are excellent, many being in full color. All in all, however, Balaclava: Gentleman's Battle, is fairly good for recreational reading, but little more. Battles of the Crimean War, by W. Barring-Pemberton, also tries to describe the entire war, although in a different fashion. The war is seen as a string of battles, which are somewhat flimsily laced together in the text. There is not much background information, and the amount of hard data is hardly more than Selby's. Although the background to the battles is less than adequate, this is somewhat compensated for by the descriptions of the battles. These are clear and well written, and one knows what is going on at all times. The account of the confused and fragmented Battle of Inkerman is especially good. The maps, while not particularly artistic, are adequate to the task of illustrating the battles. The style of writing is nice, although the author does not mention the war going on in places other than the Crimea, and all the armies besides the British are given rather short shift, which perhaps is par for the course in a book of the "British Battles" series. Battles of the Crimean War is good in parts, especially its battle accounts, but in other areas it is barely up to the standard of the other books, even Selby's.

The third book to attempt to describe the entire war is A.J. Barker's *The War Against Russia*. Barker is an experienced military historian, and this is readily apparent, for *The War Against Russia* is by far the best general work on the Crimea, Barker writes well and handles his subject adeptly. There is a good deal of hard data, and organization, logistics, weapons, tactics, as well as orders of battle, all are given in some detail. It gives the background of the war in depth, and is the only book to dwell on the long-range effects of the Crimean War, both political and military. It is also impartial, and all parties are

S&T 28, featuring Lost Battles game

Lost Battles comes complete with 22x28" mapsheet, die-cut counters and other playaids. The game covers operational level (regiment/battalion) combat in Russia (1944). The game uses a new movement/ combat system to reflect the inter-relationships of infantry, anti-tank, artillery and tank units. A new sequencing system is used to reflect the "wave" characteristics of attacks at this level. Special rules also reflect such factors as road-space and command/ supply problems, Included in the game are four scenarios reflecting four typical kinds of operation (such as Russian Tank Offensive). Also in issue 28 is an article on the Military Systems of the Dark Ages, a complete survey of the period 500-1200 A.D. The article is quite comprehensive and presents the data in an easy-to-digest "modular" format. Also, Part Three of the War in Russia series: Soviet & German Weapons & Tactics. This article complements Lost Battles. Plus our regular features.



portrayed with fairness. The War Against Russia is also the only work to go into any detail on the war outside the Crimean Peninsula, which it does very well. The book's only deficiency is its graphics. There is much information which could be given in chart form, but is not, while the maps are inadequate, and sometimes hinder full understanding of the situation. Finally, the illustrations are mediocre in quality. However, it is not an exaggeration to say that The War Against Russia is by far the best work on the entire war, and might well serve as a model military history, which combines useful information with good reading.

Of the books which deal with a specialized portion of the war, one deals with an event, another with a personality, and a third with the interaction of both,

The Battle of the Alma, by Peter Gibbs, deals almost exclusively with that one battle, which in many ways was the most important of the war. The events leading up to the battle are discussed, but those flowing from it are left at loose ends. The style of the writing is not bad. It contains some hard data, being fairly good in orders of battle, and there is also some material on weapons and tactics, although this is not extensive. The description of the battle

is well done, and is helped by informative maps and diagrams. The French and the Russians get their due as well as the British. Unfortunately, although one gets a good understanding of the Battle of the Alma from this book, it is not particularly better than the understanding a careful reading of Barker and Baring-Pemberton would give. Still, it is far from useless. As *The Battle of the Alma* deals with a battle, so Christopher Hibbert's *The Destruction of Lord Raglan* deals with the person of Lord Raglan, a "gallant Christian gentleman" who was commander of the British forces in the Crimea, and was made the scapegoat for the failings of all concerned with

S&T 19, featuring the Blitzkrieg Module System game

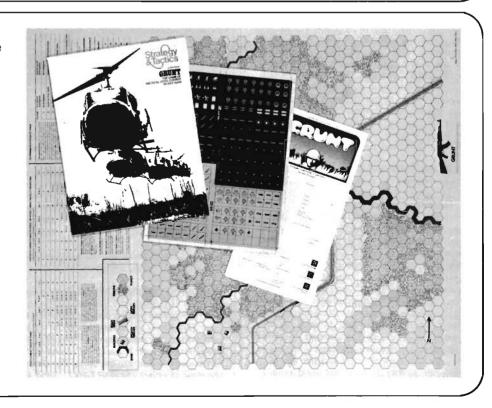
The ultimate variant for AH's Blitzkrieg game. Includes new set of counters (all unmounted) for both major powers as well as minor countries. New set of "modularized" rules covering such subjects as railroads, different movement systems, sequencing, different OB's, production, supply, naval forces, flak, air forces, weather, guerillas, artillery, and variable scenarios. Numerous charts, tables and other play-aids are included. Our surveys have shown this variant to be much more popular than the original game. Also in issue 19 is the first installment of our articles on North Africa, this one on the Italian Army. Also an article on Hannibal plus our regular features. These included an article on miniatures, plus letters. Diplomacy and others.

\$3,00, from Simulations Publications



S&T 26, featuring the Grunt game

Grunt comes complete with 22x28" playing map, die-cut counters and other play-aids. Grunt covers ground combat in Vietnam. This game is unique in many ways. It uses a combat system in which the defensive value of a unit depends on the terrain the defender is in. The game is on the squad (6-12) men) level. The game provides for true hidden movement for one player (the guerillas). A wide selection of scenarios and Orders of Battle are provided. Usually the American forces come into the game by helicopter assault. A good solitaire version of the game is also provided. Also in issue 26 is an article on the development of the Airmobile division and its evolution in Vietnam, Also included are articles on the history of the Waffen SS and the fourth part of the North Africa series; this article covers the Sea War (1941-43). Plus our regular features.



the war. While the book is not a biography of Raglan, although there is a chapter on his earlier life, it describes the war as it pertains to Raglan. Although the author sees Raglan as a tragic figure and is sympathetic towards him, there is no attempt to whitewash Raglan's failings as a commander. There is a good deal of information on the British army and high command of the period, as well as data on supply and accounts of battles, in so far as they influenced Raglan. The book could be improved by more and better maps, and some more information would have helped the author prove his points more conclusively. However this is more than counterbalanced by a very good style of writing, and the numerous prints and photographs which illustrate the book. The Destruction of Lord Raglan is a good book for an understanding of the commanders, and the situations with which they worked.

The personalities of Lord Lucan and Lord Cardigan, and how they pertained to the famous charge of the Light Brigade at Balaclava, is the subject of Cecil Woodham-Smith's The Reason Why. This book is well-written, probably the best written of any on the Crimea. The book is primarily concerned with the lives of those two Victorian aristocrats, and more than half the book is devoted to their pre-Crimean careers. The book sees the "reason why" of the charge in the conditions of the army and society of the time, where a man's ancestry was much more important than his ability. The book does grind an ax, but does so well, and with much material to support its conclusions about the British Army of the period. The book's best point is explaining how a diverse series of strategic and tactical blunders led up the charge. The only things that could improve the book are more illustrations and better maps. The Reason Why is the book on the charge and is excellent reading as well.

In addition to the previously mentioned two types of books, there are also re-issues of contemporary books.

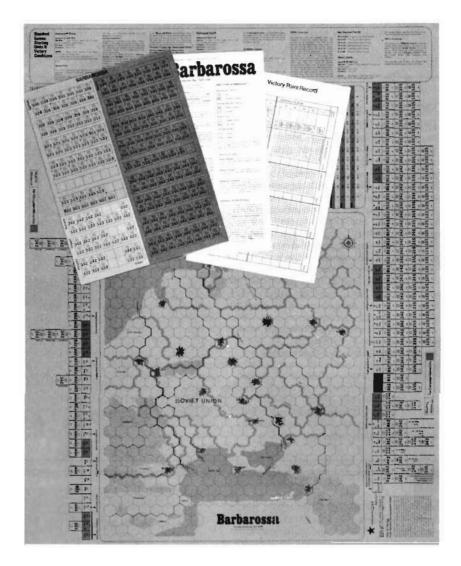
William Russell's *Despatches From the Crimea* are excerpts from the detailed accounts he wrote as a War Correspondent. They were originally quite detailed, being uncensored, (The Czar's subcription to the **Times**, by the way, remained in effect during the war.) The writing style and hatchet-like editing has reduced the present edition's usefulness, but there are still some interesting details which are missing elsewhere.

Story of the Campaign of Sabastobol [sic] by E. Bruce Hamley is a reprint of a magazine serial published in 1856, before the war was over. Its most noteworthy feature is its large amount of useless trivia; informative material is rare, but the first-hand account can be interesting at times, and it is no worse than many more modern works. Of the eight works on the Crimean War herein considered, none are without redeeming features and all will contribute something, although varying widely in amount and usefulness, to one's understanding of the war. But for those with limited time, and perhaps only a limited interest in the Crimean War, I would recommend to them The War Against Russia as the best single work on the war. Those interested in other facets of the war, or simply looking for good reading might try The Reason Why and The Destruction of Lord Raglan. The other works

All New Simulation Edition

BARBAROSSA

The Russian-German War, 1941-45



Many consider Barbarossa the finest strategic game ever produced. The game is simple, fast moving, realistic and historically accurate. It's always been our best seller. The new Simulation Edition of Barbarossa not only clears up what few "errors" there were in the first edition, but also includes many logical improvements in the game rules and components (such as corps breakdown counters for the army-size units used in the

game). Barbarossa is actually five separate games. First there are the four "Campaign Year" games each re-creating one of the four yearly campaigns in Russia (Barbarossa, 1941-2; Stalingrad, 1942-3; Zitadelle, 1943-4; and Berlin, 1944-5). Finally, there is the Campaign game which combines the four Campaign Year games into one large game on the entire war.

\$5.00

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should be used by those who want what they offer, although that may sometimes be limited. Lastly, I would recommend for anyone reading this to read Alfred, Lord Tennyson's poem, The Charge of the Light Brigade, which can be found in any decent anthology. It is an admirable poem, and if read well, it can tell the reader more about Balaclava and the Crimean War than volumes.

Pass in Review: The Crimean War

W. Baring-Pemberton, *Battles of the Crimean War.* Macmillan, 1962. 239 pp, illos., maps, append., bibliog., index. \$4.50.

A.J. Barker, *The War Against Russia*, Holt, Rhinehart, Winston, 1970. xviii, 398pp., illos, maps, append., bibliog., index. \$7.95

Peter Gibbs, *The Battle of the Alma*. Lippincott, 1963. xi, 212 pp, maps, append., bibliog., index. \$3.95.

E. Bruce Hamley, *The Story of the Campaign of Sabastobol*. Greenwood Press, 1968. xvi, 339 pp., illos., map, \$16.50.

Christopher Hibbert, *The Destruction of Lord Raglan*. Little, Brown, & Co., 1961. xxi, 338 pp, illos, maps, bibliog., index \$6.50.

William H. Russell, (Nicolas Bently, ed.), Russell's Despatches From The Crimea. Panther, 1970. 247 pp, illos., maps, index. \$1.50.

John Selby, *Balaclava: Gentleman's Battle*. Atheneum, 1969, 254 pp, illos., maps, bibliog., index. \$8,95.

Cecil Woodham-Smith, *The Reason Why.* Dutton, 1953, 287 pp., illo., maps, bibliog., index, \$1.65.

BOOKS RECEIVED. Works in this section have been received at **Simulations** within the last few weeks and are noted here for the information of our readers.

The Damned Engineers by Janice Holt Giles. Houghton Mifflin: 1970. \$6.95. 6/7/6/6/7. A good, detailed account of the functions and functioning of an engineer battalion, set against the Battle of the Bulge. One serious drawback is a lack of sufficient maps and, on occasion, a lack of objectivity.

The Warplanes of the Third Reich, by William Green. Doubleday: 1970. \$25.00. 9/8/9/8/9. Probably the finest single volume ever done on German aircraft during the Second World War. Numerous illustrations, excellent diagrams, and highly detailed information make this a very good reference work for both the airplane buff and the serious military historian.

The Fall of Rome by R.A. Lafferty. Doubleday: 1971. \$6.95. 7/6/8/7/7. This account of the end of the Roman Empire is particularly valuable for its exploration of the odd corners of that majestic, and inexorable event. Thus, a great deal of space is devoted to things like the origins of the various tribes which overran the Western Empire in the Fifth Century. A valuable work for the person interested in ancient history.

Military Aircraft of the World by W.R. John Taylor and Gordon Swanborough. Scribners:

1971. \$5.95. 8/8/8/8/8. Dollar for dollar this book is probably far superior to **Jane's**, covering as it does all important, and numerous minor, military aircraft at a far smaller price. A handy, complete and well illustrated reference.

Zhukov by Otto P. Chaney, Jr., University of Oklahoma: 1971. \$9.95. 7/7/8/7/9.

The Prussian Welfare State before 1740 by Reinhold A. Dowart. Harvard: 1971. \$12.00. 7/7/9/8/9.

Communism Takes China by C.P. Fitzgerald. American Heritage: 1971. \$4.95. 7/7/7/8/8.

Armored Fighting Vehicles of the World by Christopher Foss. Scribners: 1971. \$5.95. 7/8/7/8/9.

The Sepoy and the Cossack by Pierce G. Fredericks. World: 1971. \$7.50. 7/7/6/7/7.

Accidental Agent by Jon Goldsmith. Scribners: 1971, \$5.95, 7/7/5/6/5.

The War of American Independence by Don Higginbotham. Macmillan: 1971. \$12.95. 7/8/8/8/9

The Anarchists by Roderick Howard. American Heritage: 1971. \$4.95. 8/7/7/8/8.

Military Men by Ward Just. Knopf: 1970. \$6.95. 7/8/8/8/9.

Spear and Scepter; Army, Police and Politics in Tropical Africa by Ernest W. Lefever. Brookings Institute: 1971, \$6,50, 7/7/8/8/8.

The Naval War Against Hitler by Donald MacIntyre. Scribners: 1971. \$10.00.7/7/7/8/8.

The Battle of Vimy Ridge by Alexander McKee. Stein & Day: 1967. \$6.95. 6/6/6/7/7.

Divine Thunder by Bernard Millot. McCall: 1971. \$7,95. 7/7/7/8/7.

The American Enlisted Man by Charles Moskos, Jr., Russel Sage: 1970. \$7.95. 6/8/8/9/9.

The War in the Yemen by Edgar O'Ballance. Archon: 1971. \$7.00. 6/8/8/9/8.

The Risorgimento, edited by Luigi Salvatorelli. Harper: 1970. \$2.75 pb. 6/7/7/7.

Admiral of the Fleet by Oliver Warner. Ohio University: 1967. \$8.50. 7/7/6/6/6.

Battle Dress by Frederick Wilkinson. Doubleday: 1970. \$12.95. 7/8/6/7/8.

When the Snow Comes, They Will Take You Away by Eric Newby. Scribners: 1971. \$6.95. 7/7/3/5/4.

Illustrated History of World War I by Stanley Ulanoff. Arco: 1971. \$8.95. 6/7/7/8/7.

Infantry Uniforms, 1855-1939 by Robert Wilkinson-Latham and Christopher Wilkinson-Latham. Macmillan: 1970. \$4.95. 8/8/7/8/7.



HOW TO ORDER GAMES, SUBSCRIPTIONS, BACK ISSUES AND OTHER PRODUCTS

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Please enclose payment with your order; make check or money order payable to Simulations Publications, Inc. If possible, do not send payment in cash. All payment should be in U.S. funds. Write out your order in exact form, being very specific as to the description and quantity of each separate item desired.

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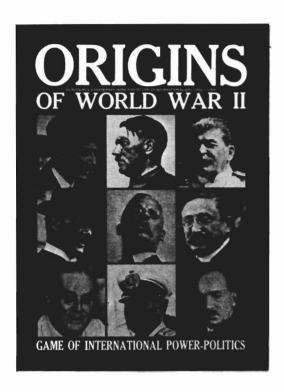
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The Games in the Back Issues of Strategy & Tactics

Starting with issue number 19, separate full-fledged games were included in every issue. Starting with issue number 26 a complete set of die-cut, ready-to-use counters were included with each issue-game. The counters in issues 19 through 25 required mounting and cutting on the part of the reader. The game in issue 18 (Crete) is bound into the magazine itself (including the mapsheets). Games in issues rior to number 18 contain only written rules, instructions and/or lists of units bound into but no finished components.

GET IT HERE FIRST! AVALON HILL'S LATEST 'ORIGINS OF WORLD WAR II'



The last game we did for Avalon Hill, PanzerBlitz, broke all their previous sales records. We also did their latest, **Origins of World War II**. Like PanzerBlitz, we think quite a lot of our latest effort for Avalon Hill. Although we didn't do the artwork, Avalon Hill did take a lot of our advice (although not enough, according to our Art Director). The game looks good and plays... well, it plays differently. It's a different kind of game.

Origins of World War II is a "political" game covering the period during the late 1930's when the diplomatic "warfare" in Europe prepared the way for the military holocaust to be known as World War II. This political warfare is re-created in Origins in a manner familiar to both Avalon Hill gamers and those who play Diplomacy, Although Origins has two, three and four player versions, it is basically a five player game. Each player controls one of the five major nations of the period (Britain, France, Nazi Germany. Soviet Russia and the USA). The colorful playing pieces (die cut 34" counters with the appropriate nation's flag on it) represent "Political Factors" (PF's). With these each player attempts to achieve his "National Objectives" by obtaining "Understandings" or "Control" in other nations. Each player has a different set of objectives, each player receives a different amount of PF's at the beginning of each of the six turns in the game. Germany is the strongest in this respect, and most games revolve around attempts to "stop Germany" while trying to win for yourself. A "Diplomatic Conflict Table" (or CRT, if

you wish) enables players to resolve their diplomatic "differences" each turn. The game involves a considerable amount of diplomacy and bargaining. Only one player can win. The game is fast and exciting. There are also four "What If?" scenarios given in case the historical situation becomes a bore. Play testers were very enthusiastic about the game. Diplomacy players liked the game for its speed and intensity of action. Regular gamers enjoyed it for the "diplomacy" aspect and the familiar method of "conflict resolution." We like it because everyone else seems to like it also.

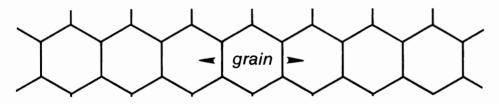
So we are offering **Origins of World War II** to you at a discount. Avalon Hill normally sells Origins for \$8.98. If you buy it from them by mail it costs you a dollar extra (i.e. \$9.98) for postage. Instead of charging you a dollar extra we'll charge you a dollar (well, \$.98) less. Send us **\$8.00** and we'll send you a copy of **Origins of World War II**. We have a large order for the game placed with Avalon Hill and will probably get it before most stores. Order now and you'll get it first. Send orders to: Simulations, 34 East 23rd St., NY 10010.

Note: **Origins of WW II** will be shipped by Parcel Post. If you wish to have it shipped to you by FIRST CLASS mail, then enclose an additional \$2.00 with your order.

On all orders, New York State residents should enclose 4% sales tax; New York residents should enclose 7% sales tax... send your hate mail to Governor Rockefeller.

Game Designer's Equipment

Right now all we can really offer is hex sheets and blank unit counter sheet sets. Eventually we will offer a wider line of game design aides.



BLANK HEX SHEETS

There are four types of hex sheets available: Each type is sold by the dozen, or you may buy a dozen assorted sizes. These blank hex sheets are the finest available. The masters for these sheets were prepared by a computer plotter and are geometrically perfect (to 4/100th's of an inch). They are printed on special high quality, heavy paper stock. This stock is specially suited for drawing on, either with pen and ink or dry marker. These hex sheets were made exclusively for our own use and are used in the preparation of all of our newest games. Hex sheets of this quality are available nowhere else. The price is \$8.00 a dozen. The hex sheets are mailed First Class, rolled in a mailing tube. You may order either a dozen of one type sheet or a combination of the different types. The hex sheet types are as follows

16mm short grain (the standard sheet used in most games, the rows of hexes run across the short side of the 23x29 inch sheet)

16mm long grain (the rows of hexes run across the long side of the sheet)

19mm (as used in the Tac 13 and Tac 14 games as well as PanzerBlitz)

25mm

Each sheet is 23x29 inches with no partial hexes. The hex-field is approximately 22x28 inches. When ordering, be extremely specific in describing exactly what sheet (and what quantity) you desire.



BLANK DIE-CUT COUNTER SHEETS (Half-inch)

Each sheet contains 255 counters (exactly the same format as the counters in **S&T**). The sheets come in two basic types:

Type A: Contains 225 counters with various standard military symbols imprinted (e.g. infantry, armor, etc.) plus 30 completely blank counters.

Type B: Contains 135 half-inch counters each having a blank symbol box imprinted on it, plus 120 completely blank counters.

Each sheet-type is available in any one of four colors: White, Gray, Tan, or Olive. Counter sheets must be ordered in Sets of Six (\$4.00 for 1530 half-inch counters) or Sets of Twelve (\$7.00 for 3060 half-inch counters). Sets may be any combination of colors and/or type. Be specific when ordering, for example: "One mixed set of six — 2 White type A, 2 White type B, 1 Olive type A, 1 Tan type B."

Feedback

How to Use the Feedback Response Card: After you've finished reading this issue of Moves, please read the Feedback questions below, and give us your answers and opinions on the Feedback Response Card. The most convenient way to use the card is to hold it directly alongside the list of questions and then write your answer-number in the response-box on the card which corresponds to the question number. Please be sure your answer numbers are legible and be certain that the number of the response-box matches the number of the question you are answering.

Please be sure to answer **all** the questions asked. Cards which are incompletely filled-out cannot be processed. When a question-number has "no question" after it, **do not** write anything in that particular response-box.

What the Numbers Mean: Generally speaking, there are two types of questions asked in the Feedback section: (1) Rating questions and (2) "yes/no/no opinion" type questions.

Rating Questions: When answering a rating question (such as what you thought of a particular article in this issue) write one number from "0" through "9": "1" is the WORST rating, "9" is the BEST rating, "5" means an AVERAGE rating, and all numbers in-between express various shades of approval or disapproval. "0" indicates NO OPINION or NOT APPLICABLE.

Yes/No Questions: When the question is a "yes or no" question "1" means YES; "2" means NO (and "0" means NO OPINION or NOT APPLICABLE).

We hope you will use your **Feedback Response Card** as your direct-line to the editors.

QUESTIONS

- 1 No question
- 2 No question
- 3 No question

Questions 4-23 ask you to rate the articles in this issue (0 = no opinion, 1 = poor...9 = excellent).

4 — Game Design-A Debate (rate this series of articles overall)

The following eight questions ask you to rate the separate articles which composed the Game Design Debate. Keep in mind, as you rate each section, how much you agreed or disagreed with that particular author's comments.

 $\mathbf{5}-$ The Rommel Syndrome: Stephen B. Patrick

6 - Rebuttal: John Young
7 - Rebuttal: Albert Nofi
8 - Rebuttal: Robert Champer
9 - Rebuttal: Lou Zocchi

10 - Rebuttal: Dave Williams

11 - Rebuttal: Redmond A Simonsen

12 - Afterword: James F. Dunnigan

13 – 1940 Revision

14 - Combat Results and Tactical Games

15 - Introduction to Advanced Napoleonics

16 - Solitaire Wargaming

17 - Pass in Review

18 – Why Are So Many Told So Little About So Much?

19 - Designer's Notes

20 - The Zulu War

21 - Manpower in World War I

22 - BIAS FOR BETTER BALANCE

23 - This issue of Moves (overall)

24 – On the basis of this issue, would you re-subscribe?

25 – Your age; 1 = 13 years or less, 2 = 14-17, 3 = 18-21, 4 = 22-27, 5 = 28-35, 6 = 36+.

26 — Education; 1 = 11 years or less, 2 = 12 years, 3 = 13-15 years, 4 = 13-15 and still in school, 5 = 16 years, 6 = 17+ years, and still in school.

27 —How long have you subscribed to **S&T?** 1 = less than 1 year, 2 = 1 year, 3 = 2 years, 4 = 3 years, 5 = 4 years, 6 = 5 years, 7 = 6 years.

28 – Was Moves all that you expected it to be? 1 = yes, 2 = no, 3 = don't know yet, 4 = yes, and much more.

Using the results of the following survey we will attempt to develop a new system of reviewing games. Basically, this system will rely on the responses of the people who have played the games. Added to these standardized results there will be a short essay by our own analysis people, which will attempt to shed some light on these numbers.

For each game there are thirteen questions (lettered "A" through "N"). Unless otherwise noted, these questions are answered with a "1" (poor) through "9" (excellent) rating.

Question A — What did you think of the physical quality and layout of the mapsheet? Question B — What did you think of the physical quality and layout of the rules folder? Question C — What did you think of the physical quality and layout of the unit counters?

Question C — What did you think of the game's "ease of play" (how well the game "moved along")?

Question E — What did you think of the "completeness" of the game's rules (was everything thoroughly explained)?

Question F — What did you think of the game's play balance (was the game interesting for both sides)?

Question G — What did you think about the length of the average game?

Question H — What did you think of the amount of "set-up time" needed before you could begin playing the game?

Question J — What did you think of the complexity of this game?

Question K — What did you think of this game's realism?

Question L — What did you think of this game overall

Question M — Would you still have bought this game if you knew then what you know now about it? (Yes = 1, No. = 2, Maybe = 3).

Question N - Do you think you received your money's worth with this game? (Yes = 1, No = 2, Maybe = 3).

We will ask you to rate four games. If you have not played these games, or have not played them enough to be able to evaluate them, then simply place "0's" in the boxes. The four games we are having you rate are, according to our surveys, the four most popular games around. What you say about them will establish a "precedent" of sorts.

PANZERBLITZ

29-Question A (mapsheet)

30-Question B (rules)

31-Question C (counters)

32-Question D (ease of play)

33-Question E (completeness of rules)

34-Question F (balance)

35-Question G (length)

36-Question H (set-up time)

37-Question J (complexity)

38-Question K (realism) **39**-Question L (overall)

40-Question M (then & now)

41-Question N (money's worth)

DIPLOMACY

42-Question A (mapsheet)

43-Question B (rules)

44-Question C (counters)

45-Question D (ease of play)

46-Question E (completeness of rules)

47-Question F (balance)

48-Question G (length)

49-Question H (set-up time)

50-Question J (complexity)

51-Question K (realism) **52-**Question L (overall)

53-Question M (then & now)

54-Question N (money's worth)

KURSK

55-Question A (mapsheet)

56-Question B (rules)

57-Question C (counters) **58**-Question D (ease of play)

59-Question E (completeness of rules)

60-Question F (balance)

61-Question G (length)

62-Question H (set-up time)

63-Question J (complexity) 64-Question K (realism)

65-Question L (overall)

66-Question M (then & now)

67-Question N (money's worth)

BATTLE OF MOSCOW

68-Question A (mapsheet)

69-Question B (rules)

70-Question C (counters)

71-Question D (ease of play)
72-Question E (completeness of rules)

73-Question F (balance)

74-Question G (length)

75-Question H (set-up time)

75-Question H (set-up time

76-Question J (complexity)

77-Question K (realism)

78-Question L (overall)

79-Question M (then & now)

80-Question N (Money's worth)



Two Brand-New Games from Simulations Publications

PHALANX-and-DARK AGES

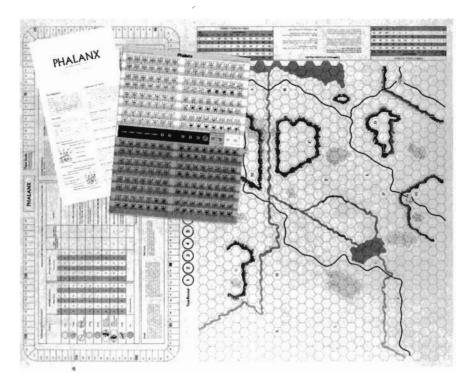
The Art of War in Ancient Greece (500BC-100BC)

The Art of War in the Dark Ages (700-1300AD)

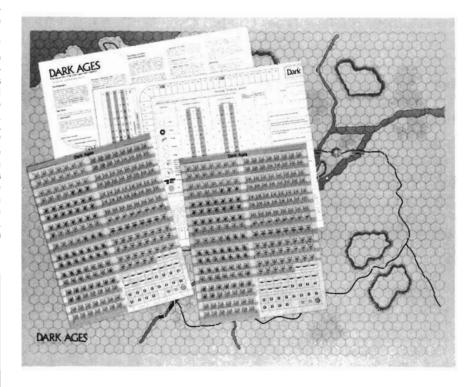
Both Phalanx (Tac 18) and Dark Ages (Tac 16) are part of our Tactical game series. Phalanx covers the period in which the Greek Persian and early Roman military systems were developed. Phalanx contains scenarios re-creating 17 major battles of the period. Playing pieces cover such diverse contemporary military units as Hoplites, or armored spearmen (including Spartan, Macedonian and Militia types), light infantry, slingers, mounted and unmounted archers as well as several types of cavalry and war elephants. Dark Ages covers the period in which what was discovered during the era of Phalanx was forgotten and then gradually relearned. Scenarios covering 14 major battles are included. Playing pieces include all the major military types of the period, such as different types of armored cavalry, axemen and swordsmen, peasant "rabble-in-arms," mounted and unmounted archers.

The tactical game system is ideally suited for the above two periods. The mapsheets used have a scale of 100 meters to a hexagon. The area on the mapsheets represents a piece of typical terrain for the period, with special terrain features added if they played a particularly vital part in certain battles. The Dark Ages map, for example, contains a river large enough for the Vikings to sail up in their long ships. The playing pieces each represent 200-500 similarly armed and trained men. Each of the scenarios gives you the correct number which each side had in the original battle, as well as special "victory" conditions and other special rules peculiar to that particular situation. The battles in both periods were rather short. The game turns in Phalanx and Dark Ages each represent 20-30 minutes of real time. Each of these periods contained a wider diversity of military types than is popularly imagined. Even during the Dark Ages period there existed many highly trained and well equipped military units (primarily in the east, particularly in the Byzantine empire). During the Phalanx period there was considerably more to warfare than the masses of spearmen we usually imagine. Both of these games give you a unique opportunity to see in action the relationships between the various military types of both periods. Seeing these inter-relationships in the actual battles is even more enlightening. You may, if you wish, even use units from each game against one another. Just in case you've ever wondered what a group of Viking axemen could do to a phalanx of Spartan hoplites

or opartan	nophies.		
6-6-5 111111 3-2-1	9-4-6 6-3-VI	0-1-11 1	4-4-4 4-3-II
1-1-9 (3) 4-1-III	0-1-2 3 8 4-1/2-V	1-1-3 *** 5-1-1	0-4-15 -4-
5-5-4 4-2-1	1-1-4 6" 0-1-	1-1-11 	0-1-5 2 5 6-1-V



Phalanx is available for \$5.00



Dark Ages is available for \$5.00