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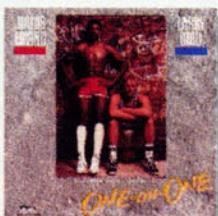
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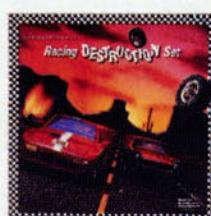
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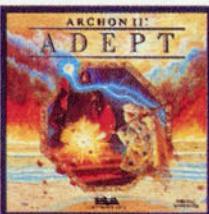
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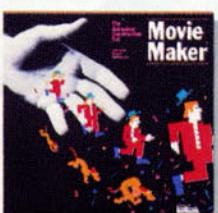
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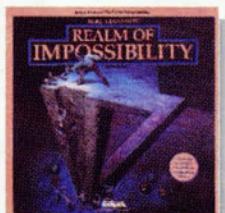
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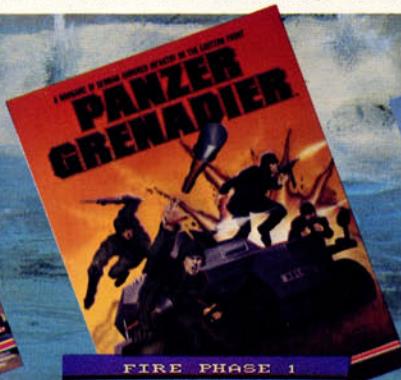
Two of the six scenarios:  
An ambush by Viet Cong  
forces near Suoi Cat on  
December 2, 1966...



U.S./ARVN units attempt to  
retake Hue during the Tet  
Offensive, February 1968.



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Game Ratings.....

48

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# TAKING A PEEK

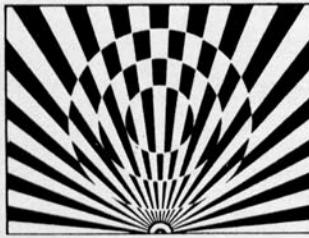
Activision  
2350 Bayshore Frontage Road  
Mountain View, CA 94043  
415-960-0410

**ALTER EGO:** This one is different! A role playing game that allows you to experience life (from birth to death) in a realistic environment. As the player responds to specific questions, AE develops a "profile" on which his life experiences will be based. The player may begin at any one of seven stages of life and is presented with situations to which he must react. The situations are extremely varied, such as deciding to take drugs, ask your girlfriend to move in or counsel a friend in distress. The current release is a "male" version, the female disk will come later. The setting is contemporary America, no orcs or magic. The game was developed by a practicing psychologist. An interesting item. C64, Apple, IBM, Mac. Circle Reader Service #3

Broderbund  
17 Paul Drive  
San Rafael, CA 94903  
415-479-1170

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**THE MUSIC SHOP:** Allows you to create original musical compositions by placing musical symbols onto the staff on your screen. You can change tempo and sound, key and time signatures. You don't have to know how to read music to utilize the program. Includes a wide selection of traditional songs on the disk. C64. Circle Reader Service #4

Brown-Wagh Publishing  
800 Charcot Avenue, #110  
San Jose, CA 95133

**FORTUNE TELLER:** Exactly what the title would seem to indicate. This is a horoscope program. The user types in the date, time and place of birth. You can then ask questions in nine categories of life experiences. C64, Apple, IBM. (\$39.95).

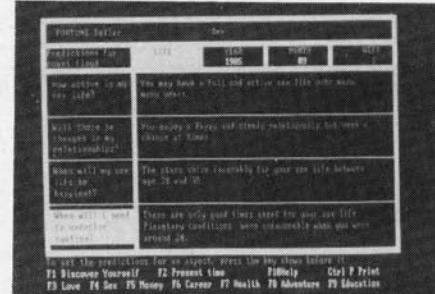
Circle Reader Service #5

Cygnus  
PO Box 57825  
Webster, TX 77598  
713-486-4163

**STINGER!**: A space arcade game, lots of shoot-em-up. As Humans in the far



THE MUSIC SHOP



FORTUNE TELLER



STINGER!

future you are faced with defeating mutant insects (bees, wasps and hornets) that are now the size of spaceships. They are beginning to migrate (killer bees!) and must be halted. C64. Circle #6

**SOLARSIM:** Designed to perform several astronomical functions: simulate the motion of the planets around the sun; simulate the motion of comets; display the motion graphically in a 3-D view; display the positions of over 800 stars and allow the user to identify each one; etc. NOT a game, this is a simulation that will appeal to serious astronomy buffs. IBM.

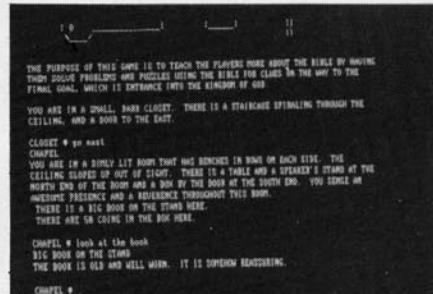
Circle Reader Service #7

Micro Prose  
120 Lakefront Drive  
Hunt Valley, MD 21030  
301-667-1151

**ACROJET:** Simulates the BD5-J, a one-man, 200 mph jet aircraft that is fully acrobatic. Three dimensional graphics, sophisticated instrumentation and quick response maneuverability. One to four players



SOLARSIM



KEYS OF THE KINGDOM



TRANSYLVANIA

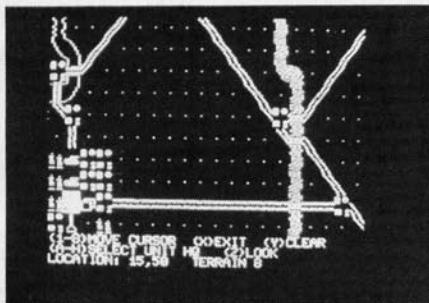
can compete in the Decathlon of Sport Aviation events. Excellent graphics and attention to simulation details. C64. Circle Reader Service #8

Mind Systems Corporation  
PO Box 506  
Northampton, MA 01061  
413-586-6463

PYLON RACER: Fly a racing plane around a triangular course, racing against a competitor visible in perspective in color on the screen. You can save your flight-path data on a data diskette and use this data to race against a friend. You can also compete against other racers via modem, in real-time. IBM. (\$44.95). Circle #9

Peterson Computer Company  
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Bellevue, WA 98004

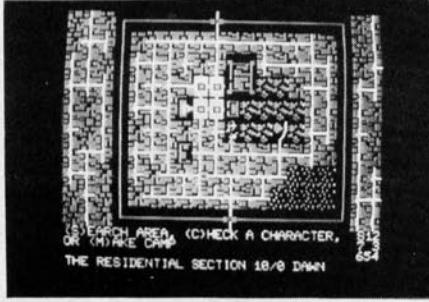
KEYS OF THE KINGDOM: A Bible adventure game, intended for ages 12 and up. The player participates in Bible stories and puzzles. The game involves collecting the armor of God (Ephesians 6) and using it to get the keys to the Kingdom of God. Game procedure is familiar to adventurers: getting objects, going north, walk, pray, etc. The parser seems fairly sophisticated. IBM. (\$25.00). Circle #10



BATTLEGROUP



RINGS OF ZILFIN



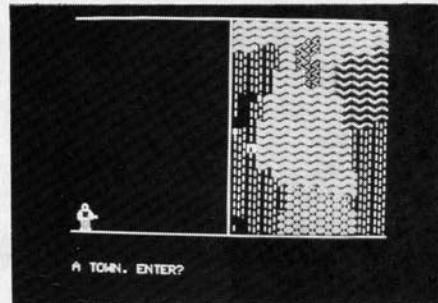
WIZARD'S CROWN

Polarware/Penguin Software  
830 Fourth Avenue  
PO Box 311  
Geneva, IL 60134  
312-232-1984

TRANSYLVANIA: Enhanced version of a classic text/graphics adventure game. Search Transylvania to find and rescue Princess Sabrina. Creatures, forests and a castle. This is the second in a series of interactive fiction that incorporates hi-res graphics and in-depth parsing. Full and multiple sentence commands, 1000+ word vocabulary. All major computers. (\$34.95). Circle Reader Service #11

Strategic Simulations  
883 Stierlin Road, Bldg A-200  
Mountain View, CA 94043-1983  
800-227-1617 ext 335 Circle #12

BATTLEGROUP: Sequel to Kampfgruppe. A tactical level combat game from WWII, allowing the player to recreate tactical combat from North Africa '43 to the bunker in Berlin. Four historical scenarios are included, but options are available to create your own terrain and objectives. American, British and German forces are provided. The computer will take either side in solitaire play, or the



PHANTASIE II

computer will play itself in historical mode. Each unit represents a platoon of tanks, infantry or guns. C64, Apple. (\$59.95).

RINGS OF ZILFIN: Animated window graphics and economic considerations represent a new approach to role-playing fantasy adventure games. Screen insets, zooms into room interiors, scrolling landscapes keyed to a strategic map and flashing character locator. You search for the two missing Rings of Zilfin and fight the evil forces of Lord Dragos. Recommended for beginning and intermediate strategy players, estimated 40-80 hours of play. C64, Apple. (\$39.95)

WIZARD'S CROWN: Hi-res graphics adventure game. You are the leader of a band of eight adventurers hired to wrest the magical Wizard's Crown from behind spell-woven walls in the city of Arghan. Combines detailed war-game type tactical battles with the magic of a fantasy quest. One feature of the game allows you to skip ahead in the story and resolve combats quicker. A multitude of combat options occur, with up to five levels of play. One player. C64, Apple. (\$39.95).

PHANTASIE II: You are to gather a group of adventurers to sail to the island of Ferronrah, use your spells and weapons to invade difficult terrain, destroy the demons and rid the land forever of Nikademus' evil spell. Eight races, six classes of characters, 80 monster types, various weapons and spells. One player, 30-60 hours of play, joystick. C64, Apple.

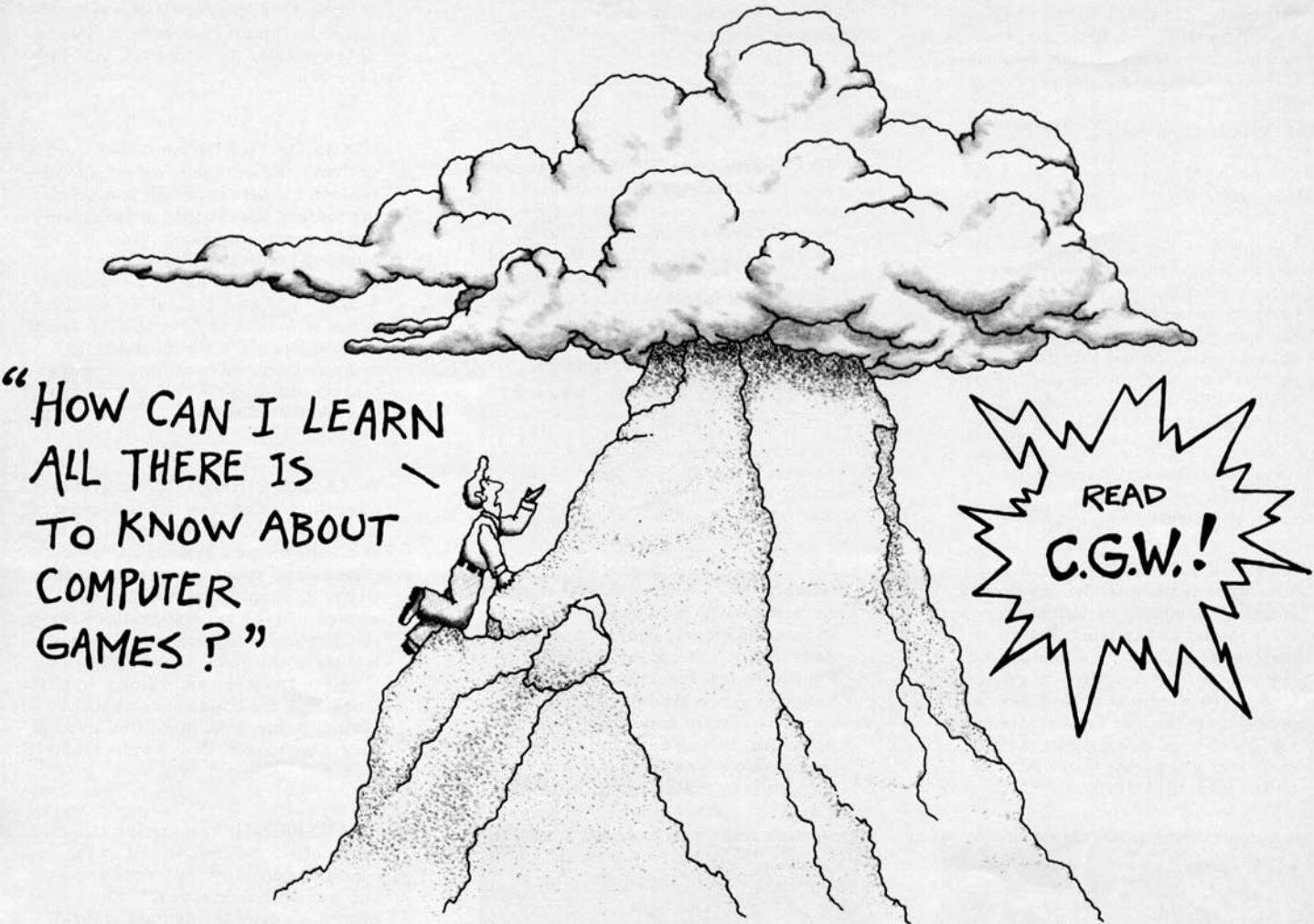
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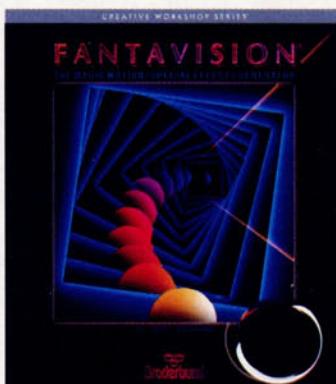
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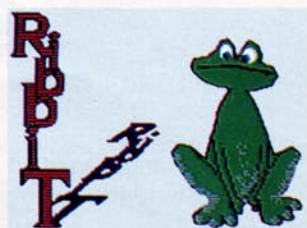
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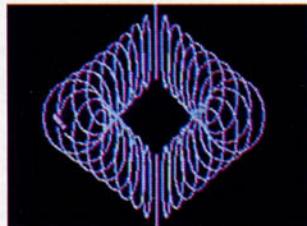
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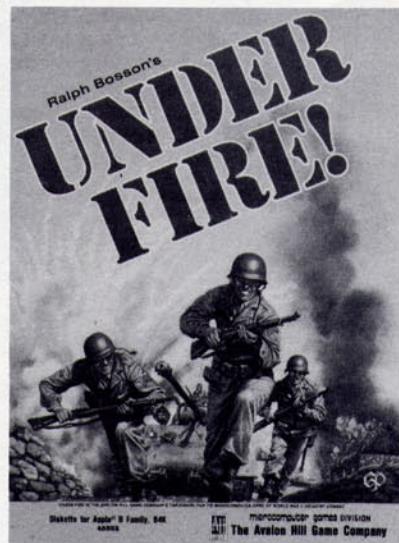
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# UNDER FIRE!

In CGW #25 Bill Harrington reviewed Avalon Hill's exciting new tactical combat game, *Under Fire!*! In this issue he teams up with the game's designer, Ralph Bosson to bring us an exciting replay. Bill's comments are in normal text, while Ralph's thoughts are italicized.



Ralph and I have chosen a scenario similar to the action described on the back cover of the *Under Fire!* (UF!) game box -- a Russian assault on a German occupied dacha. We'll use the Shadow Valley map, the Strong Hold scenario and a time limit of ten game turns. It might be, say, late summer 1943 in the Kuban Pocket on the shores of the Black Sea. My objective as the Soviet Major in command of the mission will be one particular building in the complex. We'll say our partisans in the area have confirmed it's the German Regimental Command Post. Our company, is a combined arms force of armor, infantry and tubed weapons, mortars and lend-lease bazookas from our capitalist friends in America. We have been "volunteered" for this important target to support a larger, general advance by the division. What an honor!

*Ralph: One aspect of conventional board gaming I've always liked is the setting of individual goals for each of the players. In Under Fire I wanted players to be able to set their own very personal goals apart from the game's own victory conditions.*

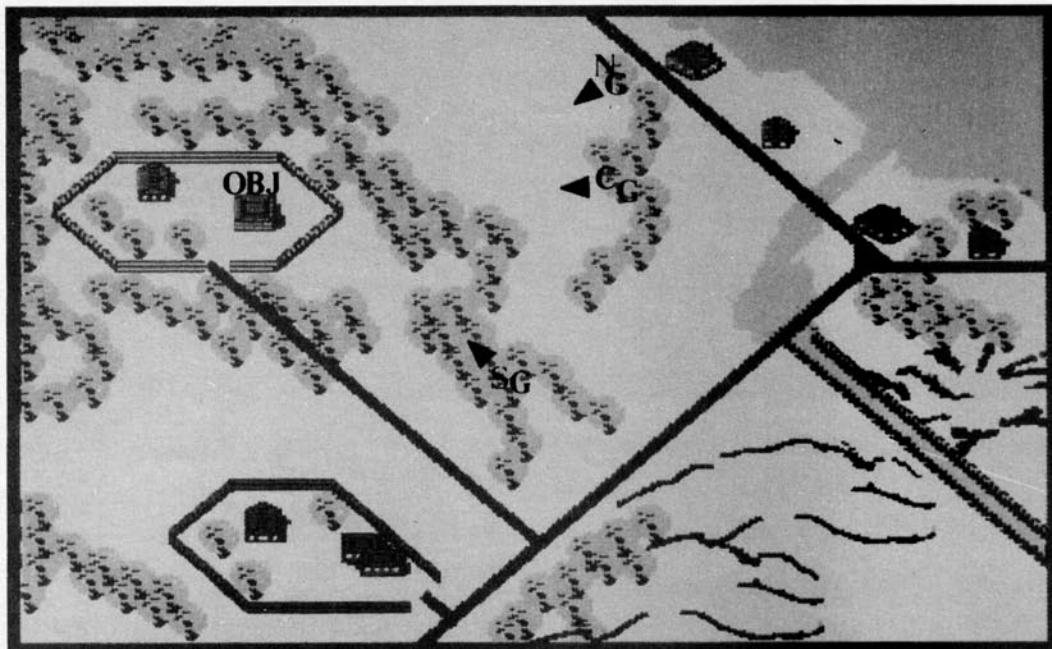
Just to make life interesting I've chosen the Leader Control option. Rather than Player or Computer Control. From now on I'll only be in command of those units within 100 meters of my position. The computer will control everybody else on the board and hopefully will make the "right" decisions in combat. This option neatly simulates the command and control problems that result in co-ordinating combat with several squads under independent leadership. As an added bonus though my "Leader" will be able to call in "off board" artillery.

*Ralph: The Leader Option requires the controlling player to order his units into positions that will allow them to work together with the rest of the*

"team". Coordinating the movement and timing of your units under this demanding game option is critical and not an easy task. The program's AI will generate combat orders for the units not under Bill's control as he orders them toward the objective area. But they'll be under their own command and might, for instance, decide to "dig in" rather than provide covering fire if they don't think an attack would be worth the ammunition used.

The nine squads under my command, being one leader, two T34 tanks, one mortar crew, and five infantry squads were initially chosen by the computer during set-up. I elected to trade in three almost useless SU76's for the two T34's and some extra machine guns, grenades and some lend lease bazookas. (If I'm going to be volunteered to kick in the front door of that dacha that's the least Regiment can do!) My initial deployment is in three groups, North Group composed of two infantry squads, Center Group with a T-34 and two supporting infantry squads and South Group under my immediate command with another T34, a half mortar squad and two infantry squads. No 3-to-1 attacker's advantage here! My forces instead will have initiative and surprise alone going for them and I hope a little luck!

*Ralph: This is a risky decision for Bill, trading in those three SU's for two T34's. The computer in UF! will set up roughly comparable opposing forces, if his company runs into German PZ-IV's or PANTHER's he'll win the Order of Lenin. But if his resistance is largely infantry he just might need that 3rd "useless" SU-76! Bill has one other advantage though, the larger size of Russian Infantry squads enables them to take a lot more punishment before they break.*



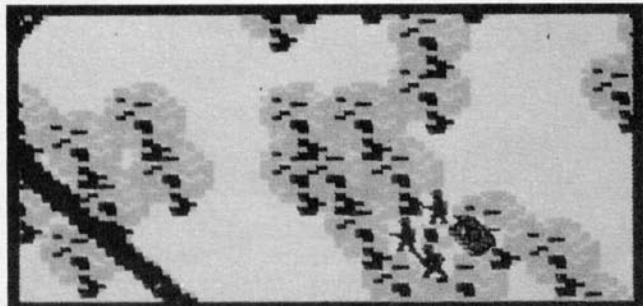
My initial strategy for the South Group will be to advance cautiously through the heavy woods in "scouting" mode, my units will automatically go to ground if they sight an enemy. (I don't know what's lurking in the forest there and I'm not about to find out the hard way if I can help it.) Center group will make a dash for the tree line opposite their jump off point while North group provides support if they come under fire. At least I hope they do. Even Ralph isn't absolutely sure what might happen under Leader Control.

*Ralph: Bill's immediate problem is the disposition of the defending German forces. The solitaire player in UF! may randomly chose between three defensive options. The program may chose to concentrate the defending forces in the objective area, or disperse it's units in a defensive belt outside the objective or chose to use the bulk of it's forces to defend the objective while maintaining a light screen outside the objective area.*

### Turn 1

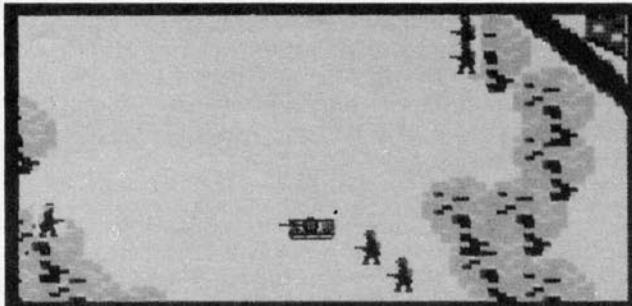
The South squad begins to advance through the forest toward it's objective. I've sent the infantry scouting ahead of the T-34. If they get into trouble I can call up the tank or lob a few mortar rounds. So far, so good. The center squad is holding their

*mode sight an enemy unit it will immediately halt and risk exposing itself to enemy fire. This options works well in wooded terrain but I wouldn't recommend it in the open.*



positions in the tree line, waiting for Northern group to dig in and prepare covering fire. The woods are almost eerily quiet. Too quiet!

*Ralph: Bill's use of "scouting" does have one drawback. Should any of Bill's units in "scouting"*



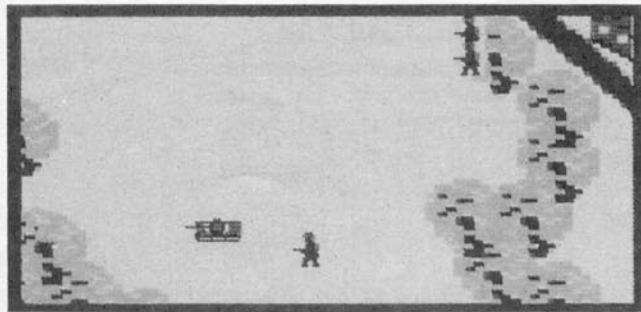
*The sound of a German heavy machine gun shatters the morning quiet. As our center group began it's dash for the tree line a German squad opened up from the woods. Five men are hit in 2nd squad (infantry) and the T-34 has come under indirect artillery fire! The tank is undamaged and our*

# UNDER FIRE!

tankers return the fire and score two hits on the German machine gun. No supporting fire from the Northern Group yet! Are they asleep up there or just deaf! In the South still no activity as we proceed through dark green forest.

*Ralph: That's the Leader Control option alright. My guess is the squads in the North Group have weighed the risk of revealing their own position against the poor odds of directing small arms fire over such a long range. And they can see that German artillery falling in their front as well. The solitaire player in UF has a strong sense of self preservation!*

## Turn 3



The center group continues their brave dash toward the tree line. Six more of our men are cut down! Wait till we close with the fascist swine! Our T-34 attacks and scores only one hit on the German machine gun squad! That's luck for you! I've called in an artillery strike on the reported German position. I can't see them of course but it's imperative to suppress that German machine gun that's cutting them to pieces.

*Ralph: I don't want to rain on Bill's parade but the odds of scoring a direct hit with indirect fire (His leader is not in sight of the target) are pretty long.*

Center group's T-34 fires again, with No Effect! The last remaining member of 2nd squad falls. Now only the tank and a single infantry squad remain in Center Group. Our artillery rumbles overhead, a photo flash of light and the seven man German squad vanishes in a boiling geyser of dirty gray smoke and debris! Well done Comrades! That's shooting for you.

*Ralph: All right, so I'm only the author, what do I know?!*

## Turn 4

At last, contact. Our 7th squad (mortar) in South Group had gone on ahead and was out of my control. Another German heavy machine gun in our path. Luckily our comrades where "Scouting" and

went to ground with no injuries. Our Center Group has at last gotten to the tree line. They move north to take up their final positions before storming the dacha. As they advance they will provide cover for the Northern Group as it begins to move toward



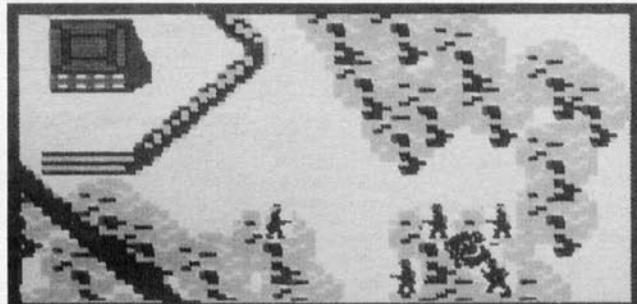
the tree line and it's rendezvous with Center Group. I don't like this one bit.

7th squad (infantry) reports that the German unit that ambushed them has disappeared! That's all I need, to play hide and seek with German machine gun squads!

*Ralph: The German squad could be doing one of two things. The UF! tactical routines could be directing it to retreat toward the Objective Area ahead of the attacking force OR they could be maneuvering for another assault on Bill's advancing forces.*

## Turn 5

Our Northern Group continues it's crossing of the open field. But the heavy machine guns I so thoughtfully equipped them with in the beginning are slowing them down. They may be late. Our Center Group has nearly arrived at the rendezvous point! In the South though we've got our hands full. The missing German machine gun squad turns up on our flank! Our 7th squad (mortar) makes contact



and attacks. Before they're done their shells and medium machine gun take care of six more of the enemy. Meanwhile 4th Squad (infantry) trades fire with a new German infantry squad suddenly in our path. Despite a hail of rifle and heavy machine gun fire, bazookas and even rife grenades only one German is hit! What are they wearing, steel underwear! In turn our men suffer five more hits. Our T-34 opens up on the new German squad and claims two more of the enemy. A hissing panzer-

faust strikes the T-34!!! The crew bail out just in time but the tank will be sorely missed.

Ralph: Bill got caught at close range by a dug-in German squad w/ a heavy machine gun. Looking at the situation, it appears that the German got a surprise modifier on the attack. The modifier not only adds hitting power but Bill elected to order his men to "fire" and increased their exposure. I don't want to second guess, But... Bill might have done better to order his men to "Hit The Dirt". And Bill's running out of time as well as men! The Northern Group is off schedule and the South Group is bogged down in the forest. Worse the more time he takes the greater danger that the solitaire player is reinforcing the Objective Area.

### Turn 6

At the rate they are going the Northern Group will never arrive at the rendezvous point in time. I've ordered them to drop their heavy machine guns to make better time. Center Group shielded in the forest waits patiently for them to arrive. In the south the battle rages against the dug-in enemy units. I've called in an artillery strike on the German infantry squad with no results! And I am sorry to report that our mortar squad has been wiped out. Our 4th Squad (infantry) and the surviving tank crew have claimed only one member of the German

Unit in response.

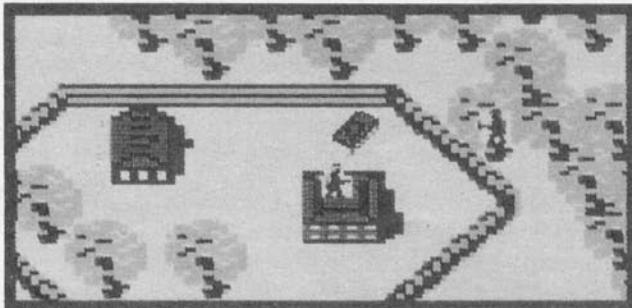
Will this turn never end? Our 4th Squad is in turn wiped out. The brave tank crew are next struck by indirect enemy artillery fire and are lost to us.

I am fatally hit while attempting to come to the aid of my men. It's up to our comrades now in the remaining North and Center groups to carry on without us.

Ralph: With the loss of his "Leader" Bill now has no direct fire control of any of the Soviet forces on the map. And now when they'll need it the most there's no one to call in artillery support.

### Turn 7

Lieutenant Kalishnikov reporting: Center Group leads the assault into the dacha. Our T-34 crashes



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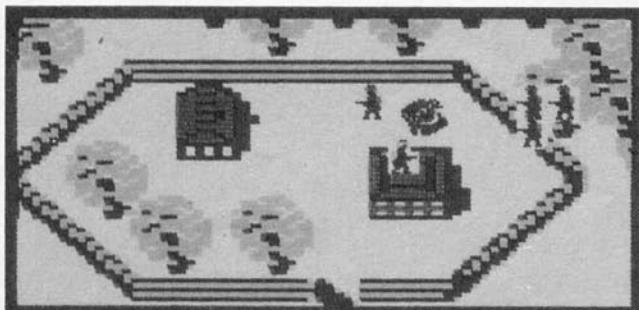
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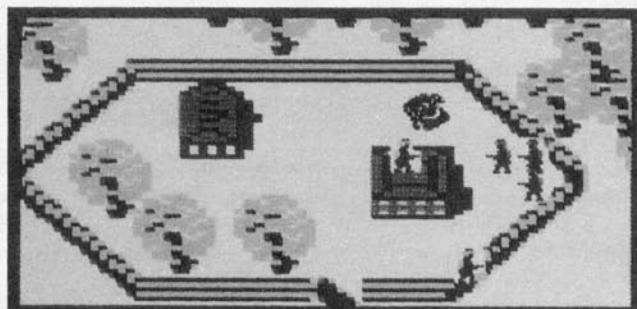
through the hedge and advances on the dacha. A German squad opens fire from the second floor of the building. At first they exchange fire with no effect but our men won't be put off so easily! Another 76 MM shell and a burst of machine gun fire claim two more Germans. A loud bang, a panzerfaust strikes the front armor of the T-34. The crew bail out!

*Ralph: The big question now is how many Germans are in the dacha. Without the tank Bill will have to mount an unsupported infantry assault. These last few yards will be the toughest!*

Turn 8



Turn 9



A German machine gun nest hidden behind the building has opened up on first on 5th Squad, one man falls. Our 3rd Squad (infantry) attacks in turn

*Continued on pg. 47*

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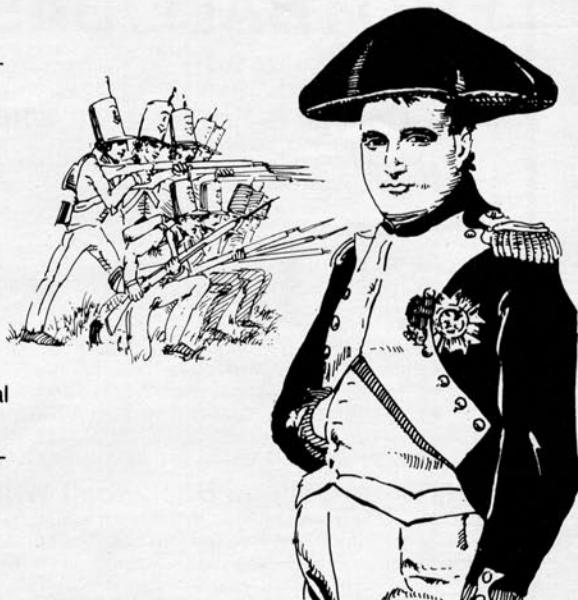
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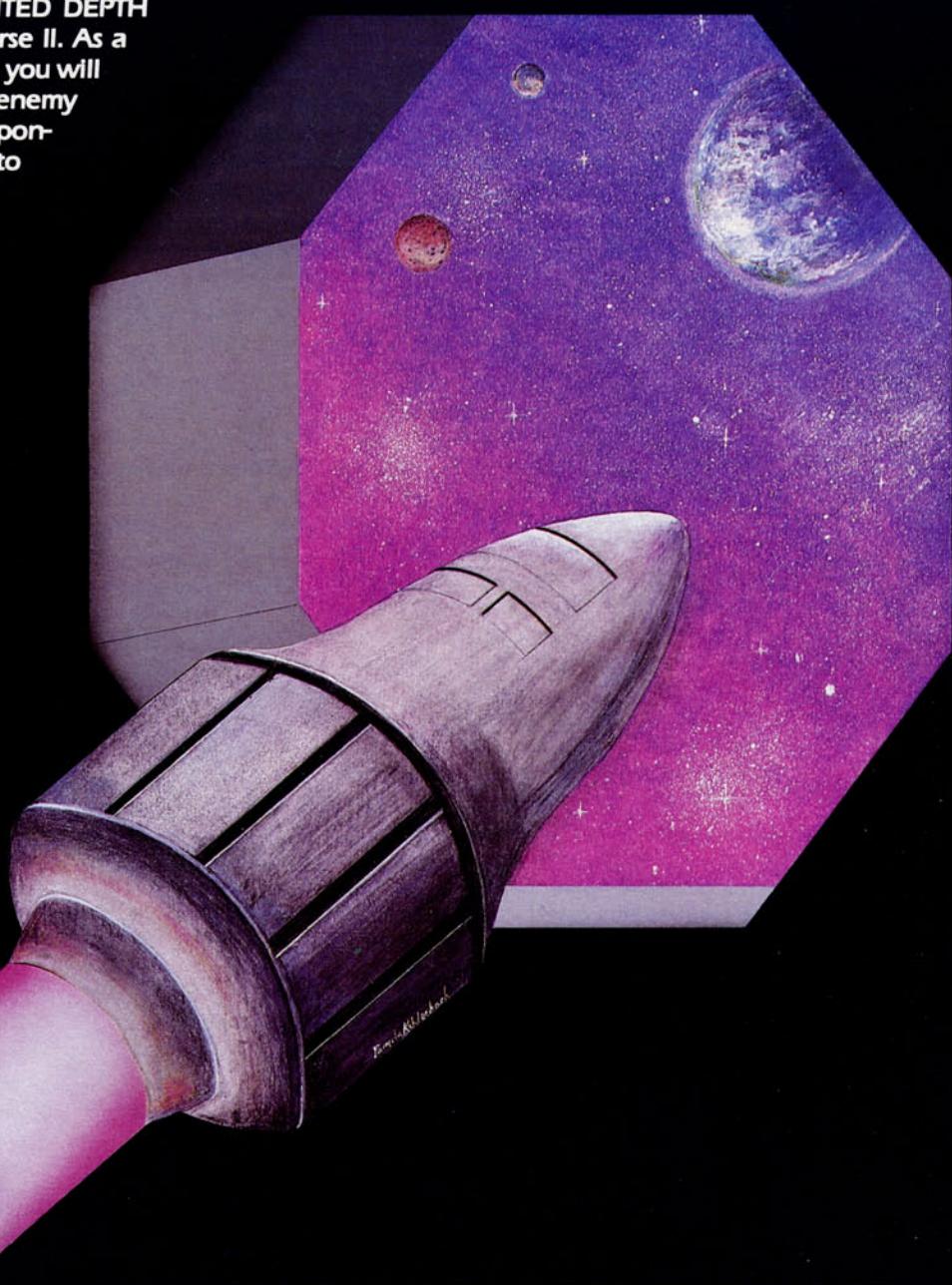


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IBM/Zenith and Macintosh versions available October 1985, Apple// version available December 1985, Atari ST version available February 1986.

# SIDE BY SIDE

## EUROPE ABLAZE AND USAAF

by Jay Selover

If you were a boxing promoter, you could wait your whole life for this match-up. A real heavyweight contest! A "Thrilla In Manila"! What am I talking about? The comparison of *Europe Ablaze* and *USAAF*, of course. Never before have two true "heavyweight" companies released games on very similar subject within a few months of each other. Here you have undisputed champ SSI and veteran designer Gary Grigsby putting their title on the line with *USAAF*. The challengers, Roger Keating and the Australian company SSG, bring in *Europe Ablaze* with only one previous outing. But that one prior release, *Carriers At War*, was a stunning first round knockout which catapulted the Aussies to the top of the contenders.

Alright, enough of the boxing metaphors. Let's look at the two games. Both games cover strategic bombing in Europe during World War II. Both show the course of the air war on a day-to-day basis with missions and interceptions tracked through the day in five to ten minute increments. Both can be played solitaire (computer playing either side) or as two player games. Beyond these simple observations, we will need to look at each game to understand how deeply the similarities run and where the differences are.

### *Europe Ablaze*

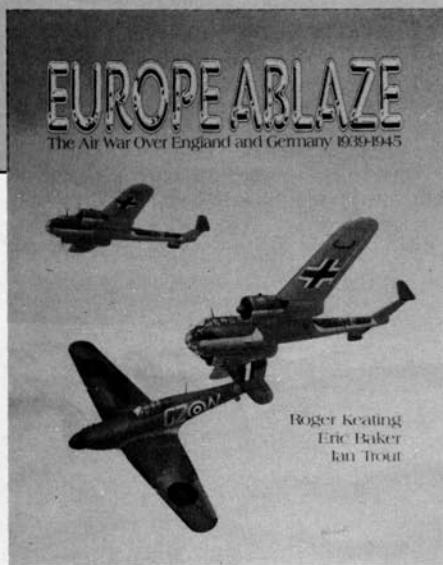
*Europe Ablaze* was released in October, 1985 for Apple systems (only). The design/development team of Roger Keating and Ian Trout have taken the basic system from *Carriers At War* and moved it half way around the world. *Europe Ablaze* covers strategic bombing in Europe during World War II on a daily basis with each day broken into five minute increments. The game description claims that the time frame is 1939-1945 but that is not quite accurate, in that one does not play a six year campaign. Instead, there are three scenarios from

which to choose; each one covering several months from a critical period. Thus, one can replay the Battle of Britain in the first scenario, as Germany endeavors to best the RAF and subdue England. The second scenario marks the beginnings of the Allied campaign, with RAF night bombing raids and the *USAAF* testing its wings against a formidable Luftwaffe. Finally, the third scenario covers the heart of the most devastating Allied bombing of the Reich. This is one key difference between *Europe Ablaze* and *USAAF*; while the latter covers only daylight bombing of Germany by American plane in 1943-45, the former presents several strategic situations and can allow either the Allies or Germans to play the strategic offensive.

*Europe Ablaze* builds on *Carriers At War* with some critical changes. Some of these were made due



to the differences in the two types of campaigns covered and others were made because of advances in Roger Keating's programming techniques. As in *Carriers At War*, the program keeps track of virtu-



ally every plane in the respective air forces on a minute-to-minute basis during action. The unit of maneuver is the air group (5-40 planes). Each group roster is kept up to date with losses, damaged planes, and also those out of service for repairs or maintenance. The computer also keeps track of everything on the ground; status of airbases, status of all sorts of target types, all flak units, and also the reconnaissance level on each target. This program is a "number cruncher" par excellence!

Many of the new items relate to the unique aspects of combat with heavy bombers in Europe. Specifically, we now have mission planning and important subroutines for fighter interception. Before each day's combat, an air force with bombers must make plans for upcoming operations (daylight bombers plan at midnight and night bombers plan at noon). One decides on the targets of the day's missions, the altitude and arrival time over the target, the course to be flown (up to two midflight course changes are allowed), which groups will participate, and which fighter groups will fly escort (at least as far as they can).

Beyond the major missions (from zero to four or five each day), one can assign individual groups to other tasks. Recon missions must be flown to keep intelligence reports updated. Also, individual bomber groups can execute raids or harassment missions. Finally, fighters not escorting missions can be assigned to offensive sweeps, patrols, or be held in reserve for interceptions. The assignments other than missions do not often hurt the enemy badly, but they can do a very good job of cluttering up his radar screens making it hard to pick out your big missions.

Planning is all well and good, but if your force is on the strategic defensive (Britain in 1940 or Germany in 1944), what you really want is interception capability. Here is another major addition beyond *Carriers At War*. In *Europe Ablaze*, an entire set of menus is available to assign interception missions "on the fly" as a day's fighting progresses. As one receives radar alerts and updated reports on enemy forces, one must decide which incoming

"blips" to intercept, which fighters to scramble, and when.

### USAAF

Much of what you use to describe *USAAF* sounds like "same as *Europe Ablaze*". In a "broad brush" description, both sound very similar. In the individual situation of American daylight bombing of Germany, the players make basically the same kind of decisions in *USAAF* as in *Europe Ablaze*. Before each day, the American player decides on targets for his missions, the altitude and route to fly, take-off time, and the groups assigned to each mission. Defensively, the Luftwaffe player may assign some standing patrols, but most of his activity will occur (as in *Europe Ablaze*) during the course of the day as he decides which enemy "blips" to intercept, with what, when, and where. The two programs are both very similar also in that they keep track of all air groups (serviceable and out-of-service aircraft), replacements, morale and experience, target status, flak positions and strengths, weather, and many other factors. Both programs also give the results of air-to-air combat in terms of individual planes lost (with some intentional uncertainty and exaggeration in pilot "kill" reports).

While *USAAF* may seem "smaller" than *Europe Ablaze* in that it covers only one phase of World War II strategic bombing and it lacks the "design your own scenario" feature of *Europe Ablaze*, it compensates in the treatment it gives to target selection for the American player.

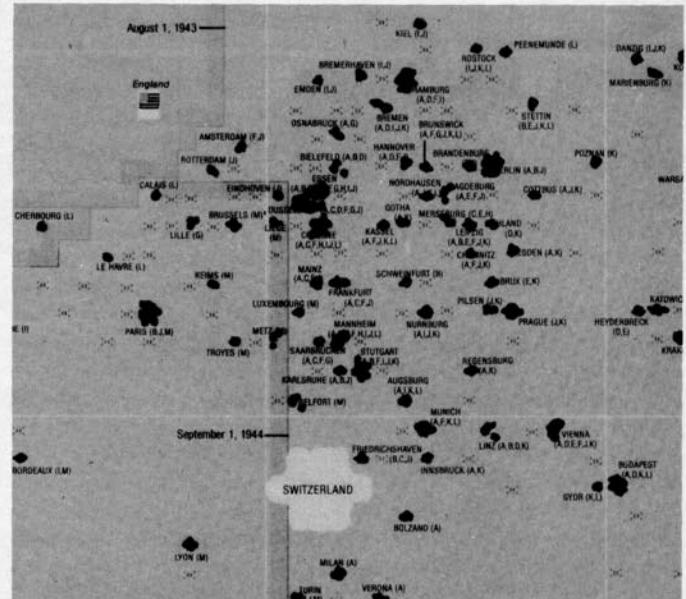
*USAAF* is more a "study" on the crippling of specific German industries than a view of the entire air war. When the American player begins to bomb Germany, in *Europe Ablaze* he selects his type of target from a list that includes "population center", "airbase", "radar station", "industrial center", and a few others. In *USAAF*, that "industrial center" is broken down into about fifteen different categories. You do not just bomb Essen, you bomb the munitions plants, or the aircraft factories, or the ballbearing factories, or the chemical works, or,

or, or. The American in *USAAF* must decide which industries will provide the best pay-off in victory points (considering the likely Luftwaffe defensive commitment), and then go after a few industries in force. Things become still more interesting in *USAAF* when you look at the industrial interrelationships which have been built in to it. Thus, knocking out one industry below a particular "critical level" may begin to reduce the output of other "dependant" industries. Thus, destroying the chemical industry gives you a certain number of victory points, but you will also benefit from a reduction in the rubber industry (rubber is dependant on chemicals). An even more tempting target is the aircraft industry, since the level of this industry is directly connected to the number of Luftwaffe replacement planes which appear for the German player to use.

*USAAF* also has a few other items not found in *Europe Ablaze*. The map extends further south into Italy, and the Americans must also direct the operations of bombers based in Libya, Tunisia, or (in 1944) southern Italy. There is also a more detailed treatment of fighter doctrine and American assignment of fighters to "deep escort" of bombers is handled very nicely.

### Side by Side

In the final analysis, *Europe Ablaze* and *USAAF* are complimentary designs. Because of the slightly different focal points and features covered, they



could both be owned and played without feeling that you have just bought "two of a kind". If this was that heavyweight fight that I mentioned earlier, it would go fifteen tough rounds and come out a draw.

*Europe Ablaze* is a bit more generous in its coverage of strategic bombing and also has a "design your own scenario" feature which allows the truly dedicated to vary virtually every parameter or even design entirely new situations. It is also well suited to multi-player games, as individual air fleets can be assigned to different players and there is even a slot available for a "commander in chief" on each side who sets priority targets for each air command.

*USAAF* is a bit more confined in its treatment, but it covers well what it sets out to do. As a study of the collapse of Germany's industrial capacity under the weight of American bombs, it is unsurpassed.

I hate to end this all on something of a downer, but let me add one note of caution. A strategic bombing campaign is a long grueling affair. Each day alone looks very much like each other day. Bombing missions go out, take fighter and flak losses, bomb the target with more or less success, and return to base. There is no sudden knock-out punch available within this course of a day or even a week. To get the most out of either of these games, you will need to be patient and play for quite a while. The battle reports that come in during a day can be quite exciting to see at first, but after days and days of the "same" reports, one can begin to wonder if anything is really happening to the enemy. If there is one fly in the ointment with these two games, it is the danger of succumbing to an ennui over the day to day "sameness". This is a function of the combat being simulated, and it is present equally in both games.

It is easy to enjoy both games; just learn to look past the tactical results and analyze the trends which become evident from week to week. Your operational plans and execution really do make a difference (both offensively and defensively), and once you begin to feel how you are changing history, these games can both become very rewarding gaming experiences.

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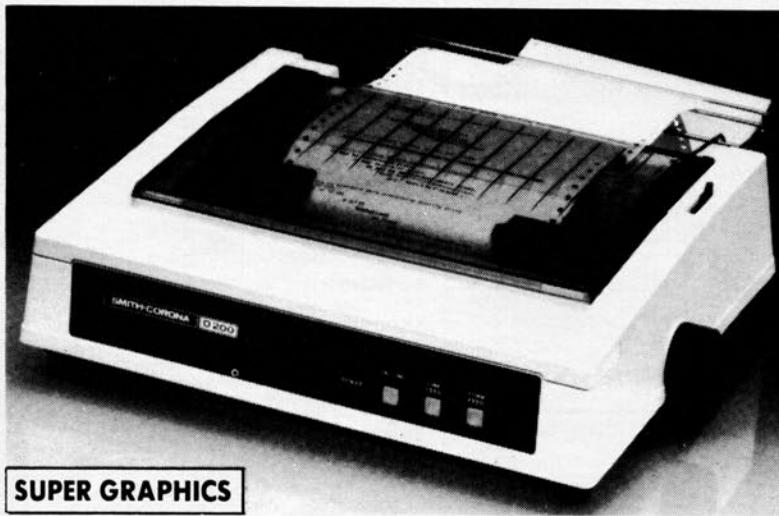
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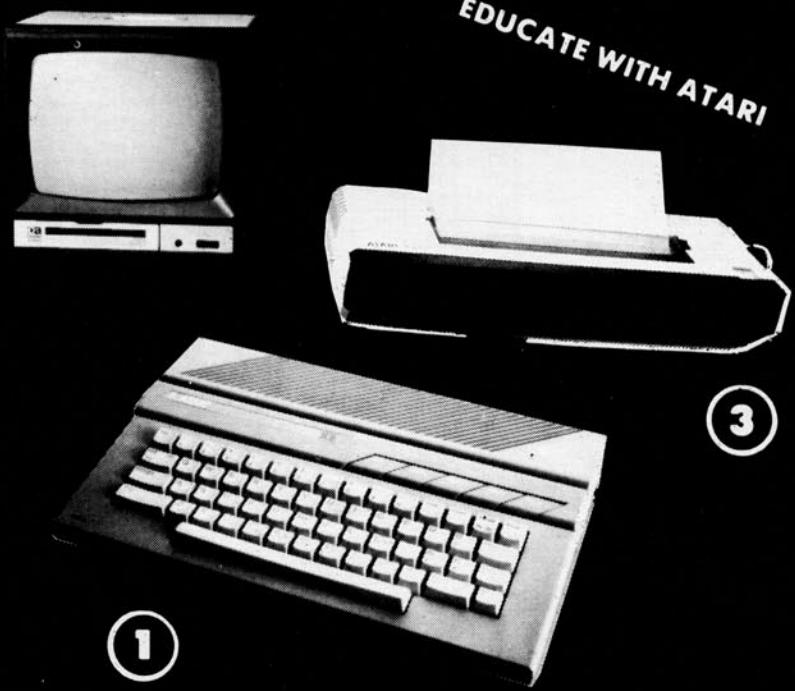
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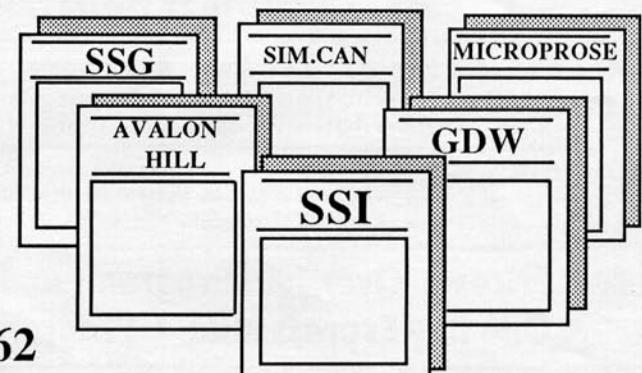
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## As told by Scorpia

Back again, eh? My, you're looking a bit peaked. It must have been all that running around in the cubes you did last time! No matter, we have just the thing to make you feel better and provide you with a little relaxation: a trip to the circus!

Well, maybe this wasn't quite the best circus to choose. "The Travelling Circus That Time Forgot, Inc." is, perhaps, a trifle on the sleazy side. Certainly the performances were nothing to write home about. Nor the over-priced goodies, which weren't all that good. At least it's over, and now you're loitering in the wings of the big top, feeling slightly depressed.

Ah, but you may yet have the chance to bask in the limelight, incredible as that might seem. There's more going on around here than is first apparent! All it takes is a little snooping around (ok, a *lot* of snooping around), some death-defying acts, and a bit of help from your friends (and this column!) to bring you fame (if not fortune).

The first order of business, naturally, is to find out just what is happening below the surface. Stepping out of the wings, you find yourself at the Connection. A small group of people is making its way through a turnstile nearby, but you don't seem able to follow them just yet. No need to worry; you'll manage that later.

In the meantime, look at little Comrade Thumb, the midget. Poor guy, he's having a hard time getting a drink of water. Too bad he isn't quite tall enough to reach the button on the fountain.

Moving along south, you come to the White Wagon, where Mr. Munrab (read that backwards) resides. He probably wouldn't take kindly to being interrupted, but what's that sticking out from under the trailer? Hmmm, it's a long fiberglass pole. Funny, no one did any pole-vaulting during the performances, so it must have some other use (or even uses). You might as well hang on to it.

Drifting west, you reach the Back Yard. Here comes Chuckles, who brushes past you, speaks to the guard in the cage, and disappears through the turnstile southwards. And right on his heels is none other than Comrade Thumb. The little guy is ap-



# BALLYHOO

parently willing to give a performance for you gratis, so go ahead and enjoy it. And by all means, do not overlook Harry the guard. He is a *very* knowledgeable person; talk to him often.

Say, look at that tent over there... let's take a peek inside. Ah, this is where the props are stored. Uh-oh, sounds like someone is coming... better do something fast! You don't want to be seen (there won't be much of a game, otherwise).

But, at least you know now what the problem is: Munrab's daughter has been kidnapped! And the detective he's hired is just slightly less than competent. With him on the job, you shudder to think of what might happen. There's only one thing to do: rescue her yourself. Of course, that's easier said than done. Especially since any or all of the performers could be involved.

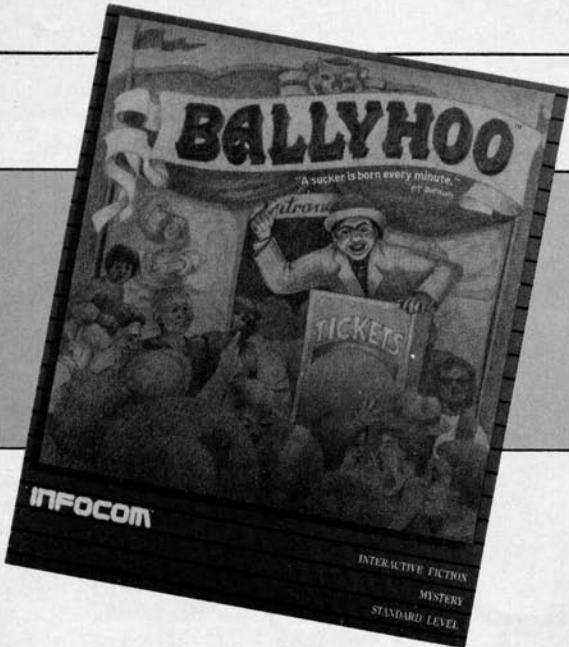
Things seem to have reached an impasse. You can't get through the south turnstile, and you can't get through the east one. But, have you been everywhere else yet? Wander around for awhile, and see what turns up. Bet you'll find one or two useful items! A word of advice: when visiting high places, less is better.

Ok, now you can get through the east turnstile, which leads to the Midway. First stop is the Menagerie, which houses an irritable elephant and a bored gorilla (separately, of course). A little further on you come to an empty cage. Peering in, you can just make out a key hanging on the wall. Naturally, the cage door is locked, so you'll have to swipe the key some other way. It's a shame your arms aren't longer.

Further along the Midway is Rimshaw and the bizarre Andrew Jenny. Checking your ticket, you see you are entitled to Rimshaw's services, so take advantage of them. Andrew Jenny, however, isn't (aren't?) going to be very helpful right now, so you might want to move on to the end of the Midway, and Tina the Fat Lady.

She doesn't seem very talkative; indeed, she apparently doesn't even know you're there at all. Now, how are you going to get her attention? Shouting won't do it, and you can't go climbing around on her, either. While you think about this one, I'll just sneak out for a quick snack. Oh, and make sure you take in the complete exhibit!

Looks like you're about done here for now, and there's still that other turnstile to get through. That's a tough one. Harry won't buzz you in, because he knows you're not one of the performers. If



you could figure out a way of tricking him, you might be able to get by. However, you do have to know a little bit more about Harry first... and don't forget about the balloon.

So, here you are in the performer's camp at last. Not a very large place; only two trailers in all: one for Katzenjammer the Lion Tamer and one for the clowns. It doesn't appear that anyone's home at Katz's place, still that key you borrowed might be useful here. Clown Alley is occupied, but you'd have a hard time getting in as yourself. Pretty hairy stuff.

Care for a little excitement? Ready to take your life in your hands? No? Gee, then you won't ever finish this adventure! Ok, that's better (I'm glad you changed your mind). Pay a visit to the lion's den. My, that stand looks interesting. Unfortunately, shaggy-mane won't let you near it. But that's no problem for you, right? You know all about these beasts, right? (If you don't, you haven't been talking to the right person!). So, don't just stand there, get those cats out of the way! Grate work!

Whew! Actually, this lion-taming business is really easier than it looks, huh? (We will overlook the fact that your face is white and your knees are shaking). Perhaps a little music will help you to calm down. Unfortunately, reception around here isn't too good; all you get is static. It probably has something to do with being at sea-level.

Now that you've gotten yourself together again, you might want to check out that gift. You still have some money with you, and that's what it's for; don't be afraid to a little gambling. Ooops, it looks like you're broke (or maybe you did too well and got tossed out). No matter, there wasn't anything else to spend the money on, anyway.

Let's do a little inventory check here. Ah yes, that cigarette case. I'll bet there's someone who would be interested in seeing it. That is, if you know to whom it belongs. And leave us not forget those poor animals cooped up in the menagerie!

So, what about Mahler (the gorilla, not the composer) and Hannibal of the jungle? Ya know, there's a lot of truth to that old saying about elephants and mice; now where would you find a

mouse? As for the gorilla, you should be able to handle him in record time; it's all in your head.

There seems to be a hole in the wall here suddenly; take a step through and see what's on the other side. Aha, the White Wagon! And now, you can get to the ladder in back of it. But wait... here comes Comrade Thumb, and he appears to be rather upset. Remember what he shows you (it can wait a little while), then check out the top of the trailer.

It wouldn't be surprising if you found something interesting in that trailer; however, there's Munrab to deal with first. Actually, getting him out is really pretty easy. Hello? Anyone home?

Still, you don't want to waste time here, so get in and out fast. Then you can check out what Thumb was trying to show you before. Ahhh, you're getting close now, but you aren't quite finished. The bird, so to speak, has flown again. Give chase, but don't just stand around.

Darn! Looks like he got away after all. Say, who's that lying on the ground there by the Midway entrance? By golly, it's the detective, and he's out like a light. Possibly there is some way you can wake him up. After all, you're just dying to get a look at that ransom note, aren't you?

The action is beginning to wind up now; you

*Continued on pg. 44*

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## Map Design for Computer Games

### Creating the Universe

by Steve Estvanik

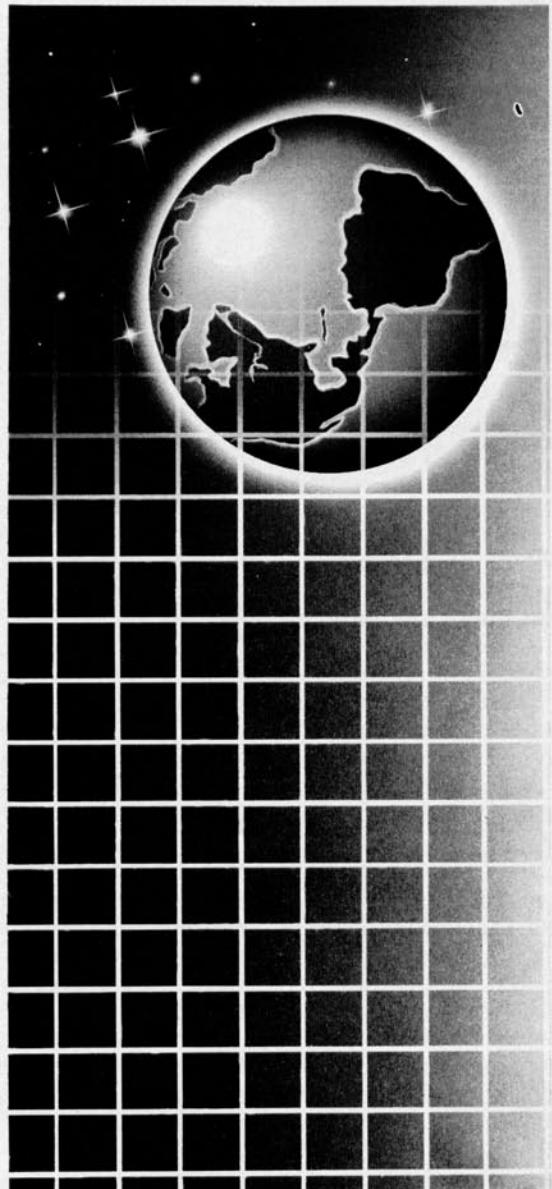
The universe may be measured in parsecs or footsteps, but its appearance to the user is all important in computer games. Computer game designers have many considerations to balance. Among the variables are resolution, color palettes, information to be displayed, terrain features, scrolling and grid systems. In addition, choices made in map design can have dramatic effects on programming and the dynamics of play.

What follows is an overview of some of the decisions and problems a designer faces when determining the type of graphics displays to use in a game. I'll be concentrating on the 'strategic' areas of game design. The more tactical areas of actual color choices, terrain representation and symbols used will be discussed in a future article.

A map is arguably the most important part of a game. Games require the assimilation of many kinds of information and the manipulation of a variety of kinds of units. From all the options available, helpful as the computer might be, the human commander must still develop a plan of action and somehow convey those orders to the program. The map should help, not hinder, the player in sorting available information. It should organize and channel the player's energies, not disperse them with excessive distractions. Good map design can't cover for a bad game design, while bad map design can easily ruin an excellent design.

#### MAP TYPES

The first step in designing a new game's graphic system is deciding what type of map to use. The simplest maps are static, like the world maps used in *Epidemic* to show the progress of the disease. Individual countries may change color, but the map itself is a single screen. These maps can be produced separately with a 'paintbrush' program and loaded into memory when needed. The next step up from this are the maps used in *Diplomacy*, *The Ancient Art of War* or *Incunabula* -- an unalterable background in graphics mode, upon which units are displayed. These maps introduce the first problem, since they are larger than what can be shown on the screen at one time. In the early days of computer games, some games, best left unnamed, 'solved' this problem by displaying each portion separately. A map that was 6 times the size of the screen would thus be displayed only as 6 separate maps. This worked fine while action was confined to the middle of the map. But if your units were trying to cross a map, or coordinate with troops on the next map, it was at awkward to use these programs. The solution, of course, is a scrolling map, but scrolling is not a graphics feature on all sys-



tems. And on most systems, the entire graphics image must be stored somewhere. This means the map itself (apart from the units displayed upon it) cannot change. Some games, like *Eastern Front*, provide for a changing background color, but as this is still an essentially static map, since all of a given terrain becomes white in winter.

In contrast, dynamic maps use the computer in a way that no boardgame can. Boardgames sometimes try to accomplish similar effects by using various counters and markers, but these systems are limited in effectiveness and burdensome to use. Computer versions are transparent to the player. In my current project, *The Civil War*, the computer takes on the tedious bookkeeping of supply and railroad integrity and shows you graphically who controls what territory. As Union and Confederate troops move on the map, they change the background color of that terrain. Thus you see the dynamic aspects at a glance and can plan your attacks accordingly. Similar effects were used in *By Fire and*

*Sword* to give a historical feel to the map. Here, each vassal unit claims land for its feudal lord. The result is a patchwork of colors reminiscent of medieval maps. These effects cannot be achieved economically in graphics modes. On the current generation of machines, (perhaps even including the ST and the Amiga) graphics modes considerations restrict the programmer to predrawn maps. Redrawing complicated maps cannot be done dynamically in graphics mode. This leads the designer to look at alternate means of producing maps, eventually coming to character graphics modes.

Character (or text) graphics was actually the first kind of mapping used in early minicomputer interactive games. Minicomputers were limited to the ascii character set and could only draw crude maps, often with no cursor control at all. The first games for early microcomputers were conversions of earlier works that didn't take advantage of the new machine's capabilities. These recycled games fared poorly in comparison to arcade games which showed the new machines' powers to better advantage.

Recent micros have much improved text graphics abilities. The IBM for example offers a 256 character ascii set. 16 colors can be displayed simultaneously, until recently, far outstripping the abilities of most other machines in so-called hi-res mode. (Apple's hi-res discrimination of 280 by 172 is actually not as fine as IBM medium res of 320 by 200!) On newer machines like the Atari or Amiga, you can define your own terrain-building characters to develop a custom set. Thus a game like *Gulf Strike* can have the look of a graphics map while using character graphics.

The main advantage of character graphics is the ability to change very small areas, modify colors and even change terrain features. Thus in *By Fire & Sword*, the barons can choose to cut down forest areas to create their castles. Other barons can then send troops to siege and set fire to these buildings. These operations would have been prohibitively slow to display in graphics mode.

#### MOVEMENT SYSTEM

The next problem is the choice of a movement system. The simplest method is area movement such as that used in *Diplomacy* or *Call to Arms*. With area movement, units move from one section of the map to another. There is no need for accurate measurements as the time scale allows movement through large areas.

For most tactical games, and many strategic games, a more constrained movement system is required. In boardgames this is usually solved by the use of a grid system. The two main grids used are square and hexagonal. The square grid is easy to draw and regulate, but distorts diagonal movement. Also, it generates problems for zones of control (ZOC) in diagonal directions. Some games which appear to be graphic maps are in reality disguised square grids, for example, *Legionnaire*, *Gulf Strike* and *Rome & the Barbarians*. Units are unnaturally

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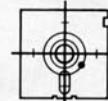
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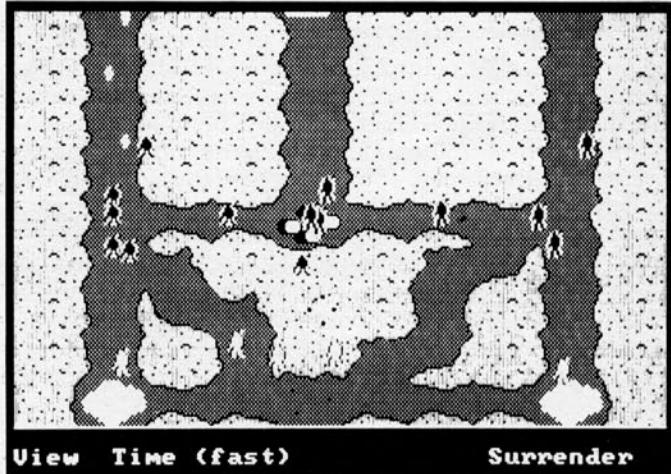
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constrained in the directions they can move and attack. In *Legionnaire*, for example, to move diagonally, the unit moves up one, then over one for a cost of 2 rather than the true cost of 1.4. A careful programmer can overcome these difficulties and produce a square grid design that still plays well and has the proper feel. In such cases, the square grid is a perfectly acceptable solution to the problem.

A related problem of square grid systems is the blocky look that results. Rivers either take right angle bends or they have to run through the middle of squares. Which, in turn, causes problems in deciding which side of the river troops are on. Very few maps, computer or boardgame, allow rivers to run through squares or hexes. The boardgame War & Peace does, for example, and therefore requires special rules for following a river's course versus crossing it. Instead rivers are usually borders. Similar effects occur with mountain passes. These effects rapidly complicate the movement and combat sections of the game. Their implications when it comes time to write the artificial intelligence routines grow proportionately. An easier method needs to be found.

The hexagonal grid seems to cure most of the square's problems. All directions are more equal and ZOC is simpler to calculate. There are several subtle distortions, though. Any hex grid has a grain -- lines of units can form a straight line in either the horizontal or vertical direction, but not both. The other direction will be a jagged line. Thus a unit moving in a row of hexes will cover less dis-



tance than a unit forced to move in a zig-zag pattern. (The distortion is about 20%) Road networks are also distorted. In Napoleonic and Civil War era games, in which regimental lines occupy multiple hexes, the grain of the map can make a big difference in tactic. In general you can bring more units to bear against the grain, so attackers will want to move against the grain, while defenders will want to be facing with the grain. (This is most easily seen by playing with some counters on any grid map.) The designer's choice of grain direction thus directly and artificially influences the play of the game. (POP QUIZ: Examine the maps from some of your favorite boardgames or computer games. Can you spot the grain? Would it be easier to attack or defend if the grain went in the opposite direction?)

The ultimate system, then would be one in which all distance costs are geometrically accurate, in which ZOC's are reasonable and in which there is no grain effect. Such systems exist and have been used for years by miniatures aficionados. They use various rulers and templates to decide movement distances and firing ranges. Some means of coding terrain features is required. Otherwise, how would the program handle a unit which was 1/3 on a road, 1/3 in trees and 1/2 in rough terrain? To date, most of the computer games to use this have been naval games, as the technique is most easily applied when the need to represent terrain is minimal. In summary, the choice of mapping systems is more than an aesthetic decision. It will also affect later programming difficulty and will influence both the feel and the play of the game.

There are more solutions to these problems than there are games designers. Finding an appropriate solution still requires more art than science, but an understanding of the problems involved will help point you in a reasonable direction.

*Steve Estvanik is an independent microcomputer consultant and freelance games designer. His games include *Incunabula*, *By Fire & Sword*, *Circus Maximus* and the IBM version of *Gulf Strike* for Avalon Hill. His Air Traffic Controller game will be offered by CompuServe later this spring.*

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# SEVENTH FLEET

Ed Curtis

China, for what ever reason, has invaded Vietnam. Despite warnings from its neighbor to the north, the Soviet Union, Chinese forces continue pressing forward and are even now approaching the area of Hanoi. It is at this point that Simulations Canada's new game, *Seventh Fleet* (SF), begins.

As might be suggested by the this game's title, SF is primarily an operational level simulation of the confrontation between the US Seventh Fleet and the now growing Soviet Pacific Fleet set in the not too distant future (1995). The cordiality between China and the United States has apparently continued to grow, as the premise of this game is that the Seventh Fleet is preparing to counter the threatened intervention by both air and naval elements from the Soviet Pacific Fleet.

The mechanics of SF are very like those of its Mediterranean counterpart, *Fifth Eskadra*. A given turn begins with a status update which includes such items as the current and projected weather, your current number of victory points, the level of conflict from last turn, and a request for your recommendation for the level of conflict this turn. As operational commander, you are given the choice of escalating the conflict from the beginning level of *rising tensions* to *conventional warfare* and from there to *tactical nuclear warfare* and (if things are particularly bleak) to *operational nuclear warfare*. Your decision may, however, be overruled by your superiors sitting back in Washington or Moscow. This can be extremely frustrating when you have carefully set your forces for a quick attack while your opponent is out of position, only to have those \*ss#%!@s back in their safe offices tell you that conditions do not warrant escalation to whatever level you requested.

From this point, the game proceeds to the familiar screen which gives you the options of checking the status of your task forces, manipulating their makeups and investigate the ETA for your reinforcements. This menu also gives you the opportunity to check a very important set of ratings for your task force commanders, their *reliability* and *initiative*. A force commander which has low reliability is not very competent and must be constantly watched or merged into another task group with a commander of greater seniority (commanding a higher ranked ship). A commander of high initiative should also be watched, as he will use information you may not have to change his destination or ordered mission type. Having to constantly monitor a task force is quite hazardous, as SF introduces a new factor into their game system: an *EMCON* rating. Every time you contact your task force for information you reduce its *EMCON* rating by 10%. When this reaches zero,



your task force becomes very easy for enemy forces to electronically detect.

After the forces are organized and movement orders are transmitted, the game then enters a period of radio reports from your units. These reports might include non-ordered spontaneous attacks by a ship or sub, a reported spotting of an enemy ship or task group, or the reported detection of a submarine. It is during this phase that attacks by independent units, such as submarines, are most likely to occur.

This phase is, in turn, followed by a phase of *intelligence reports*. The first of these reports is from your respective national command centers. Moscow or Washington will give the approximate location not long ago occupied by what was probably a hostile force. As might be guessed, these satellite reports tend to be neither timely nor overly accurate. They will at best provide possible information when weather obstructs your own searches. This is also the time when you will learn the estimated time of either the CVN KREMLIN's departure from Vladivostock or the arrival of the CVN ENTERPRISE. The next two reports give information as to the locations of ships and submarines detected by your own ships, submarines, and air elements. Unlike the previous reports, these can be accepted with some confidence and may, unlike the others, be used in planning air or missile attacks in the next phase. The final report gives the number of aircraft available this turn and the number delayed for one, two or three turns.

The last phase gives you the opportunity to launch air and missile attacks against targets identified in the previous phase. Besides these planned attacks, spontaneous missile and ASW attacks may also take place at this time. At the end of this phase, shore bombardment occurs, the loss of any Soviet ballistic missile submarines (SSBN's) is reported, and political changes (such as Japan giving the use of its forces to the US or withdrawing them and declaring its neutrality) are announced.

SF contains an interesting collection of strengths and weaknesses; most stemming from the same factor. There is an admitted effort on the part of the designers, Nichols and Newberg, to create a *simulation* as opposed to creating a *game*. When

designing a *simulation*, the space you have and the time you have available are concentrated towards the goal of creating a final product which, to the best of your ability, knowledge, and limited programming space, provides a valid simulation of what could actually occur. Designing a *game* on the same subject, the designers would concentrate on play balance, ease of play, scenarios, varying difficulty levels and as much accuracy as possible in the limited space and time available. This is the old classic debate of realism vs. playability (what is the proper balance between the two). Within the limits available (especially when designing for a 48K Apple), something has to be sacrificed from the pure design as simulation in order to give the final product some hope for *longevity*. The more accurate the simulation and the more consistent the initial setup, the less time will be required to master or recognize as hopeless a given side when playing the computer as your opponent. And, four out of five of the people who play it will be playing it solitaire.

In SF, the designers have succeeded in creating a very convincing simulation with only one or two possible arguments about the projected abilities of various weapon systems nine years from now. The limited intelligence and the performance of the many ships, submarines, and aircraft are two factors which the designer's painstaking efforts have succeeded in duplicating in a very convincing way. In all, SF is a very good *simulation*. In terms of

*game design* its only strong point is its ease of play. The only variability from one game to the next is the beginning positions of the forces involved. There is no way to handicap it besides playing the Soviets when the US becomes too easy a victory (a problem which might have been solved by a factor which would alter the reliability and initiative of a particular side's commanders up or down).

In short, the final product will be enjoyed by those dedicated to realism for an extended period but to those less interested in an accurate simulation, SF may not have the staying power of more variable computer war games.

In order to be able to have the memory necessary to design their simulation, any vestige of graphics have been sacrificed to the need to use a map and counters. While this works quite well, it can be cumbersome.

SF is the best simulation of operational level naval warfare currently available. My only doubt concerns its longevity. The third in Simulations Canada's line of operational level naval simulation/games is projected to cover the North Atlantic, and it will be of interest to see if they bend from their strict dedication to accuracy of simulation at the expense of improving it as a game or, as is more probable, try to achieve both by expanding from a 48K Apple design to 64K. Which ever their choice, it can only be hoped that they continue to develop and market titles on the much neglected area of naval warfare.

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**BATTLE OF THE ATLANTIC** is a strategic game of the struggle in the North Atlantic during WWII. The Allied player must stretch to keep the shipping lanes open as the Axis, deploys air, surface, & submarine forces to starve the Allies into submission. Disk for Apple II or IBMPC systems.

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# -CGW SURVEY-

## Survey of Game Manufacturers

There is intense interest in the ongoing debate concerning the merits of the two new 32-bit computers, the Amiga and the Atari ST. We feel, as computer game consumers, that the acid test for any machine has little to do with its technical merits. The real question is, how many games will I be able to play on my computer.

Because of this, and because this is also a turbulent time for the older machines as well, we decided to poll some of the major computer game manufacturers and ask them the following question: "How many games do you plan to release in 1986 on the following machines?". Note that the answers in the chart below represent more than just titles (ie. SSI is not releasing 46 titles in 1986) the numbers represent all products on all machines (ie. A single title which will be released on three machines equals three products in the "totals" column. Here are their answers:

	Strategic Simulations	Electronic Arts	Sierra On-Line	Microprose	Avalon Hill	SubLogic	Broderbund	Avante Garde	Simulations Canada	Strategic Studies Group	Total
Apple II	14	8	7	5	5	2	1	3	2	1	48
Atari	8	5	2	1	3	0	0	0	0	0	19
Atari ST	4	0	7	5	2	2	0	0	0	0	20
C64/128	11	10	3	6	6	0	2	3	1	1	43
Amiga	2	8	4	5	2	2	1	0	0	0	24
IBM PC	4	5	7	5	3	1	3	2	1	0	31
Mac	3	5	3	0	2	1	3	0	0	0	17
Total	46	41	33	27	23	8	10	8	4	2	202

Strategic Simulations continues to be the most prolific purveyor of computer games. Adventure games will represent a larger portion of the SSI line in 1986, confirming the increased popularity of role-playing games.

Electronic Arts is strongly committed to the Amiga. They will support the ST if mass merchants begin to carry it.

Sierra On-Line is "head over heels in love with the ST". Also a strong PC emphasis, largely due to relationship with Radio Shack and the Tandy 1000 machine.

Microprose would like to get into fantasy but hasn't had any designs presented to it. They are actively recruiting game designers and welcomes game submissions.

Avalon Hill Game Co. Although Avalon Hill is cutting back on the number of titles to be released (compared to past years), the titles they do release will run on several machines with the Apple and C-64 claiming the largest piece of the pie.

SubLogic will release only two titles this year, Jet and Flight Simulator.

Broderbund is undecided on ST and Amiga, although is carrying Mindwalker (by Synapse) for the Amiga.

Avant-Garde will release primarily sports related titles in '86.

Simulations Canada will have only two new titles this year - Operation Overload and Stalingrad.

Strategic Studies Group will release one title - Road to Appomattox. SSG is a rarity in today's environment, it is still a one-man programming band; Roger Keating. SSG reports that they keep Roger chained to his computer and can expect one new game every nine months.

There is many a slip twixt press release and actual shipping of a new game but 1986 would appear to be a good year for gamers. The numbers for the ST and Amiga have to be viewed with skepticism as most manufacturers are reluctant to commit resources until the market smoke has cleared. However, it must be reported that more positive comments were made regarding the ST. The relative price of the Amiga (for a game machine) and the financial condition of Commodore were noted by a number of manufacturers as the reasons they were hesitating on the Amiga.

There does not appear to be the same feeling regarding the IBM-PC, despite the cost of a system. The Macintosh library of games is growing but not at any great speed, perhaps the new Mac+ will spur interest. For the obsessive gamer, Apple and the C64 are still the machines of choice. There aren't many titles you're going to miss with either of these.

### ATARI and the Pirates

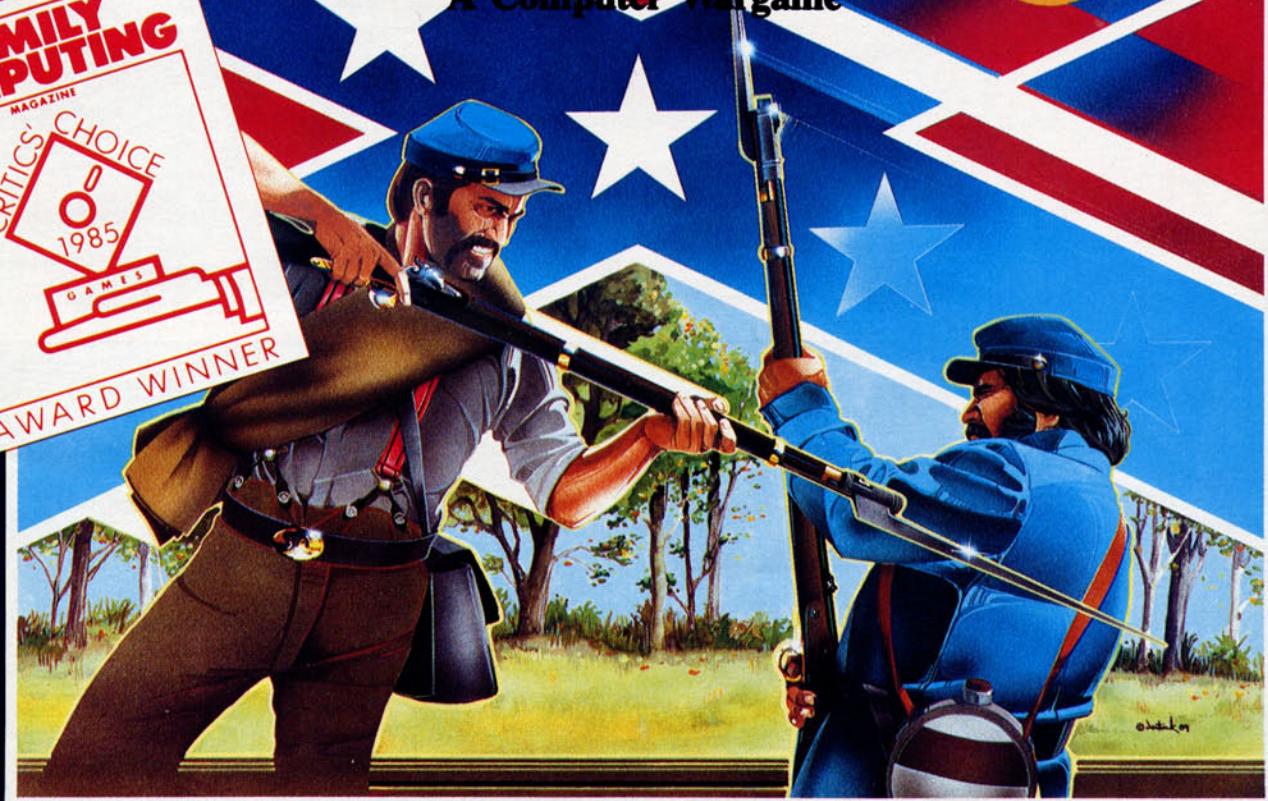
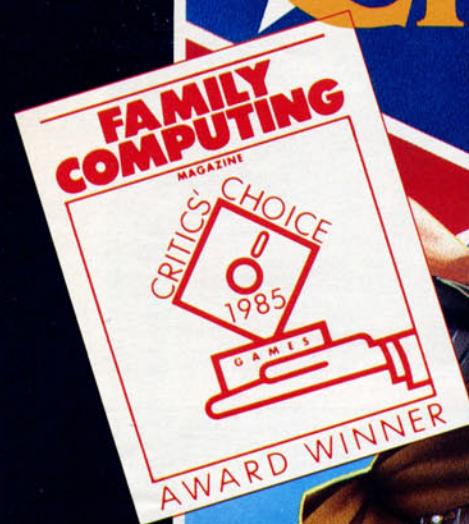
CGW gets a large number of letters from Atari owners complaining about the lack of new game software for their machine. We put this question to the manufacturers and the responses will provoke controversy. More than one company stated that copying (piracy) of Atari software was worse than occurred with other machines and that their sales figures did not justify greater support for the eight bit Atari.

Atari owners and user groups obviously deny these charges. CGW has no evidence that either side is right but it is clear that game companies are normal American businesses. When sales are declining on a particular product an intelligent manager will allocate scarce resources to support products that are increasing in sales.

There is a lesson to be learned from this discussion. Piracy occurs with every machine but a price will eventually be paid. If piracy becomes so severe that sales are minimal then your machine will simply no longer have new software to copy. It doesn't really matter what the justification for copying was, the bottom line is no new games. CGW strongly urges our readers to be aware of the hidden costs of piracy and to consider these facts when you are asked to make a copy of a game.

# The Battle of Chickamauga

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In September of 1863, the Confederate Army of Tennessee, secretly reinforced from Virginia by Longstreet's Corps, reversed its retreat to attack the pursuing Union army near Chickamauga Creek. The battle that followed was one of the hardest fought and most evenly matched of the Civil War.

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You command a Union or Confederate army of 50,000 men: brigades of infantry or cavalry with attached artillery. The computer keeps track of each man and gun, along with changing unit morale, fatigue, and communication status. You can give your army orders (8 different types) with surprising ease, with keyboard or joystick. Orders include march and cautious moves, fire, melee, rest, fortify, etc. Both sides' movement and combat are shown simultaneously on a strategic display.



A section of the battle map. The player is ready to move Law's Brigade of Hood's Division, Longstreet's Corps (the white X).

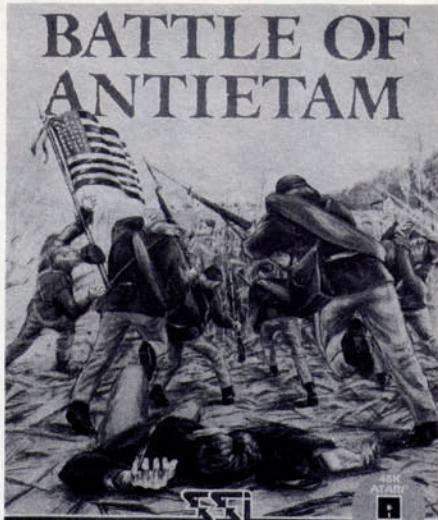
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# BATTLE OF ANTIETAM



by William H. Harrington

It began with a thoughtless mistake, when Lee's campaign orders, lost by some forever nameless Southern officer, fell into Union hands. It would end with a Confederate defeat that saved the Union but condemned the nation to nearly three more years of bitter war. Robert E. Lee and his legendary Army of Northern Virginia sought to invade Maryland and end the War for Southern Independence, on northern soil, with the final defeat of the Union Army. The result was what most consider to be the bloodiest battle of the war.

In the North, Abraham Lincoln and the hard pressed Union Army, reeling from incompetent leadership and a stinging defeat at the hands of Lee's incomparable veterans turned once again to the star crossed man who had single handedly created the Army of the Potomac and who, until the end of their days, was perhaps the only commander these men in blue genuinely loved, George B. McClellan. Always brilliant but often indecisive, he never seemed able to strike the final blow against the South. He would have one last chance to grasp the promise that had always eluded him and save the Union. By a meandering stream that gave the battle its name Lee and McClellan fought the great Battle of Antietam.

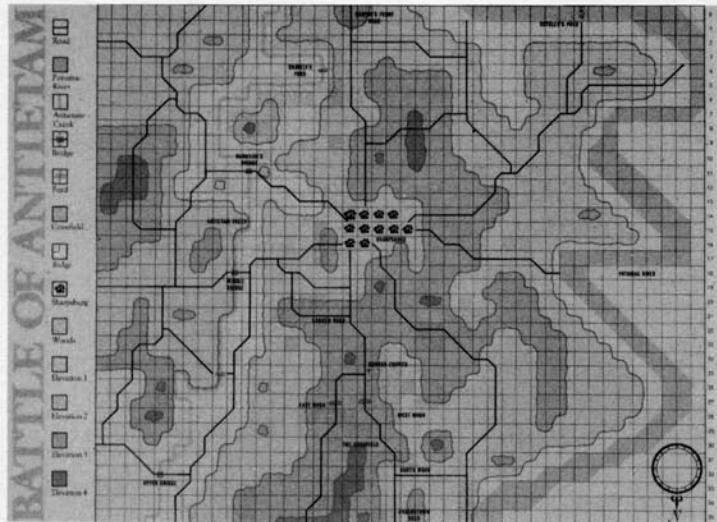
SSI's *Battle of Antietam* (BOA) by David Landry & Chuck Kroegel recreates this desperate battle on your favorite Apple II, Atari or Commodore 64 and marks a long awaited return by the folks at Mountain View to the Civil War. Let's just say it was worth the wait. BOA's packaging is the now standard SSI game box, the cover depicting Union troops of General Hooker's valiant I Corp and Stonewall Jackson's Confederate veterans battling for the infamous "Corn Field". Inside you'll find a double-sided game disk, a multi-colored laminated map of the battlefield, and one of the most complete manuals to be found in computer gaming. And we do mean complete! From a special introductory section labeled "Quick Start Rules" for beginners to an extensive explanation of rules and game options for the veteran the manual goes on to

provide complete combat resolution tables, Order of Battle, maps of the development of the "historical" battle and even a compelling narrative by Robert Billings of the actual struggle. The manual's gray text and blue subject headings contributes the final touch!

BOA is a "Grand-Tactical" simulation. The scale is brigade level with each demi-brigade under its historic leader faithfully recreated according to unit strength, weaponry, moral and experience. Game play may be either two-player or solitaire with the computer able to play the role of either Union or Confederate commander. Be warned however, the solitaire player is a challenging opponent and capable of fairly sophisticated play. As the Confederate player it will play a sound, conservative, game challenging the Union forces when necessary. As the Union player it tends to be aggressive, giving priority to "objectives" rather than enemy units. Games can of course be saved in progress. You will not finish BOA in one evening.

BOA is also a game for everyone, from tenderfoot to veteran. It includes a basic, introductory game with simplified rules and game play, an intermediate game with more sophisticated options and for the dedicated gamer an advanced game that allows for detailed command and control capabilities such as unit integrity, brigade and divisional command control tracing, leader replacement and a not a few late nights.

The gaming system created by Landry and Kroegel however goes far beyond simulating only the battle and its participants. From fog of war to McClellan's indecision, gamers may elect a series of options designed to recreate the "feel" of Civil War command and the unique problems of 19th Century combat. The "Unit Activation" option for example simulates all too realistically McClellan's piecemeal assaults on the numerically inferior Confederate forces. In addition players may choose to exercise hidden movement and have opposing units appear on the map board only when sighted by friendly forces. Gamers may even elect a time limit during game turns to issue orders. This last option may simulate the pressures of command amid the con-



UNION



CONFEDERATE



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"Two" Infantry

Routed



Cavalry



fusion of battle but it is definitely *not* recommended for the high blood pressure crowd!

The graphic system employed in BOA is both detailed and clearly designed to support the gaming system. The on-screen battlefield is a scrolling window on a larger invisible 42 by 36 square grid, each square representing 200 yards on a side. That's right, there isn't a "hexagon" to be had for love or money. Landry and Kroegel have elected to abandon the memory hungry hex movement system borrowed from board games and substituted a computer algorithm to control movement. That extra memory in BOA's case has led to a richly detailed game and display system. The terrain includes the town of Sharpsburg, streams, fords, woods, corn-fields, roads and bridges, each in detailed, hires color.

Combat Units in BOA are depicted, in the basic game, as either standard *icons*, or *figures* representing the three major unit types, Infantry, Cavalry and Artillery. In the Intermediate and Advanced Games traditional military *symbols* (i.e. bars for infantry, circles for unlimbered artillery etc.) can be used. Using the traditional symbols, players can determine unit facing and deployment at a glance! And if you've ever poured over those richly detailed pen & ink battlefield maps that have embellished Bruce Cotton's superb histories of the Civil War then BOA's *symbols* will be history come to life.

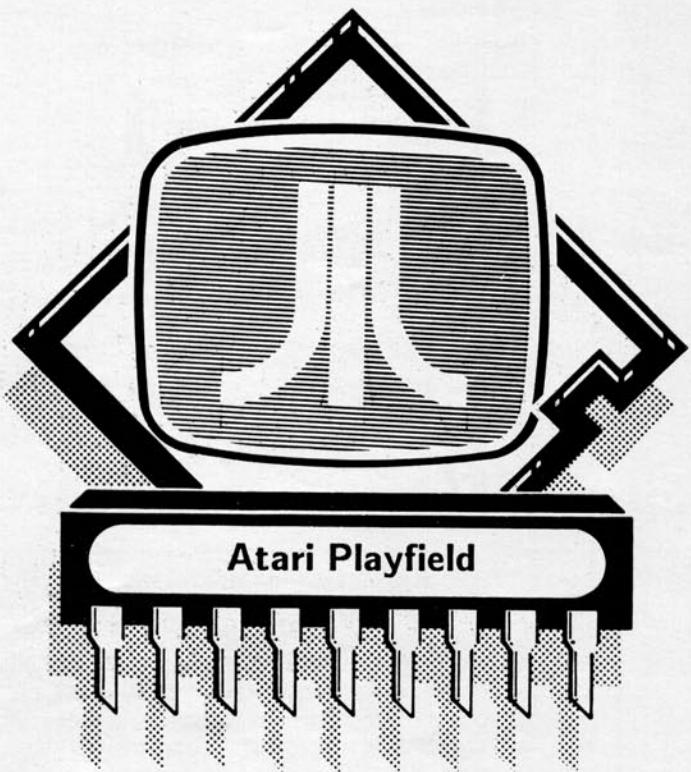
The Game System in BOA is based on distinct phases including Unit Activation, Command Control, Recovery/Rally, Reinforcement and Operations. But just maybe the most revolutionary feature Landry & Kroegel have incorporated in BOA is on-line Help Menus! Imagine, no more fumbling through the manual hunting up obscure commands or coffee stained, dog eared command cards! After all your word processor is probably simpler to learn than most strategy games you've played! Makes you wonder why someone didn't think of it a long time ago!

Game play in BOA begins at dawn, 6 AM, on the battlefield of Antietam. Each game turn in BOA represents a single hour of real time. The

sense of realism is further heightened by current statistics at the beginning of each hourly turn of killed, wounded and even "missing in action". During game turns each player's units may be activated, deployed, change facing and travel mode and of course perform both offensive and defensive fire. At the beginning of the turn players simply select a unit, its direction, movement mode, column or normal for infantry say, and begin to trace a particular unit's movement orders. Terrain, the proximity of enemy units, movement modes etc. will determine how far they can actually move. The movement of masses of often green, raw recruits was a major problem for Civil War Commanders. BOA captures the tactical flavor of Civil War combat with a variety of movement and deployment options. Infantry Units may have improved mobility on the battlefield by selecting movement in 'column', rather than 'Normal' mode but suffer heavy casualties if under fire and caught 'in column' on, say, a road or bridge. You will need to learn to maneuver your brigades to insure their combat effectiveness.

Close Order Drill, that bane of every soldier in boot camp was more than a parade ground pastime in the Civil War. In BOA the gamer is allowed to select any one of eight 'facing' positions, critical to directing Unit fire and determining line of sight. In addition units may melee, or close assault opposing units. After all units have been deployed and fire and melee plotted the computer resolves combat. Fatigue takes its toll as surely as the enemy mini-balls and shells, units may break under fire if they fail and even rally if conditions warrant. It is fair to point out that this extensive combat resolution takes some time and an accelerator card would be a welcome addition to game play. That aside the result is a game system that is both easy to use and learn while making possible a wide range of sophisticated game options without sacrificing playability.

SSI and the authors have created more than a first rate grand tactical simulation of one of the most critical battles of the Civil War with BOA. They have captured some of the look and "feel" of Civil War combat, and it shows.



GREGG WILLIAMS

### The Atari 1040 ST

The big news in January was the introduction of the Atari 1040 ST. Tramiel, for all his faults, has created a computer that breaks an important price barrier--the first computer with a megabyte of memory (1024 K) for under \$1000! The Atari 1040 ST sells for \$999 with a monochrome monitor and \$1199 with a color monitor. It includes an internal power supply and internal double-sided 720 K disk drive, a full 1 megabyte of usable memory (the TOS operating system that ate up much of the 520 ST's memory is in ROM on the 1040 ST), an RF modulator (so you can hook it up to a color TV set), and Atari BASIC and Logo.

At the moment, the only advantages to having a 1040 ST are that you have more space for BASIC and Logo programs and that the unit boots up *much* faster (in about 5 seconds). The real advantage will come when someone writes some software

that really takes advantage of all that memory.

Atari will continue to sell the 520 ST, but they're unbundling the \$800 package to \$300 for the computer, \$200 for the disk drive, \$200 for the monochrome monitor, and \$400 for the color monitor. You can now use the 520 ST with a color TV, too, which means that you can buy a working 520 ST system for \$500. All this is hard to imagine for someone whose first computer cost \$700 and had cassette storage and 16 K of memory, but it's sure a lot of fun!

### At Long Last, Fooblitzky

Now I finally have the room to talk about Fooblitzky, a game that I first saw a prototype of in (I think) 1983 during a visit to Infocom. This game is noteworthy in two ways. First, it's a multiplayer game with some graphics (from a company best known for its solitaire puzzle-oriented text adventures). Second, it's not out on the market

yet but is (by the time you read this) at the tail end of a six-month test promotion to regular Infocom customers.

I shelled out \$39.95 for the game, sight unseen, largely because I'm very involved in multiplayer games--but also because, if the game is never (God forbid) officially released, I'll have a real collector's item.

I love multiplayer games. Solitaire games are wonderful to have around, but nothing beats a well-designed game that immerses (and brings together) several people in the cozy soup of human interaction. My favorite multiplayer games are M.U.L.E. (an Atari game from Electronic Arts--one of the best games ever designed) and *Cosmic Encounter* (a multiplayer board game). *Fooblitzky* isn't as interactive as these two games, but it's still a fun way to spend time with a few friends. Like many of my favorite games, it has a whimsical premise, a definite element of luck, and delightfully unexpected turns of fortune.

*Fooblitzky* requires two to four players (no solitaire option, unfortunately) and includes four folding workslates and erasable markers. Each workslate contains a replica of the on-screen playing board and an area for keeping notes. You play using your Atari and either one joystick or the keyboard. The software (not copy-protected, by the way) is the electronic equivalent of paper maps, dice, and plastic tokens--the Atari shows you the board, sets up the hidden portions of the game, and tells you what you're entitled to know.

As advertised, *Fooblitzky* is very much like a cross between *Mastermind* and *Clue*. At the beginning of the game, each player secretly chooses one item from a list of 18 (the computer chooses for any absent player positions). The object of the game is to discover what the four secret items are and get them to a checkpoint. Checkpoints are maddening because they tell you how many correct and incorrect items you have, but not which items are which (this is where the game resembles *Mastermind*). Deductions you make from observations about where certain items are and aren't provide the resemblance to *Clue*.

## Playing Fooblitzky

Several things influence your actions during the game. You may get sent to the hospital if you cross a dangerous street intersection, you can buy or sell items at the pawn shop, and, if you're on the street at the end of your turn, you may get "flashed" by the Chance Man, who may do you a favor or really mess you up. If you're sufficiently sneaky, you can also "bump" an opponent and grab some of his or her items. If you run out of money (called "foobles"), you can earn some more by washing dishes in a restaurant.

Fooblitzky uses a highly stylized "doggy" motif throughout the game (for example, their one ad promises that "this is one game that's really going to bow wow you"). The game board represents the town of Fooblitzky, with its shops, sidewalk squares, and crosswalks (some of which, from move to move, become dangerous to cross). The city is divided into four quadrants, each of which has six stores (drug, grocery, hardware, pet, sport, and toy stores). Each store sells three items--for example, the pet store sells fish, snakes, and pigs. Each item costs either 4, 8, or 16 foobles, and there is one item of each price in each store. (At the beginning, the computer tells you the prices of the four secret items. If the items cost, say, 4, 4, 16, and 16 foobles, you can automatically ignore the six items that cost 8 foobles each.) You can carry only four items, so you must sometimes discard an item to be able to pick up another one--and woe is you if you discard the wrong item!

## The Importance of Being Watchful

It gets complicated: at the beginning of the game, each store in each quadrant has one of each item--except that one of the four copies of an item is removed if it is chosen as a secret item. (This means that, if you walk into a store that nobody's been in and the item is missing, it's one of the four secret items.) Items stolen by the Chance Man

or given away to Charity Central appear randomly in pawn shops (this makes things difficult in a four-player game, when there are four players and only four copies of a given item). If you get tired of running around town, you can either take the UGH (Underground Highway) or you can call a distant store from a phone booth.

I don't have the room to explain some of the finer details (like what happens when two players choose the same item), but you get the idea. The game goes to the player who takes good notes, has some good luck, and is careful enough make absolutely *no* wrong inferences--one wrong inference can severely damage your chances of winning.

Fooblitzky was designed by Michael Berlyn, Brian Cody, Poh Lim, and Paula Maxwell. It was originally started by Berlyn (who's no longer with Infocom) as an exercise to see if it was possible to write games with graphics that can easily be moved to different computers (which is Infocom's trademark with its text adventures). The answer is a qualified yes. Fooblitzky currently runs on Apple, Atari, and IBM computers. The game makes occasional sounds and uses graphic images (nicely designed by Maxwell), but the moving graphic images are jerky and slow; fortunately, both sound and graphics are ornamental and can be tolerated. Mike Berlyn says that Infocom has removed some of the satirical aspects of the game as he designed it; given his sense of humor and sharp wit (as seen in his adventure Planetfall), that's our loss.

Fooblitzky is an interesting game that is a moderate but not overly taxing workout of brain cells--it's not Pac Man, but (fortunately) it's not chess, either. It has numerous game options, and the mechanics of play are well engineered. I like it, especially when you have three or four players. I don't know the eventual status of the game, but you can order it from Infocom's mail-order service at 800-262-6868. If all goes well, perhaps Infocom will eventually design more multiplayer games.

That's all for now. Until then, remember--he who laughs, lasts.



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STOP PRESS...  
LATE NEWS...  
GOSSIP...

In England and Europe, the game Star Rank Boxing has been renamed Barry McGuigan World Championship Boxing after the boxer of the same name.

The Official Game of the Super Bowl has been released by Ocean for the Commodore 64.

Zoids is a computer game based on the toys from Martech and speaking of toys, Transformers is now a computer game from Ocean.

At last, Fred Flintstone has been turned into a computer game called Yabba Daba Do from Quicksilver which runs on the Commodore 64.

After the Hunchback arcade games, comes the Hunchback adventure from Ocean.

Finally, be on the look out for any games from Firebird especially the Hot and Gold games. They are well worth a look.

#### Software Houses

Elite Systems Ltd., Anchor House, Anchor Road, Aldridge, Walsall, West Midlands, U.K.

Ocean, 6 Central Street, Manchester M2 5NS, U.K.

Quicksilver, Liberty House, 222 Regent Street, London W1R 7DB, U.K.

Anirog Software, Unit 10, Victoria Industrial Park, Victoria Road, Dartford, Kent, U.K.

Martech, Martech House, Bay Terrace, Pevensey Bay, East Sussex BN24 6EE, U.K.

Electric Dreams, 31 Carlton Crescent, Southampton, Hampshire SO1 2EW, U.K.

Melbourne House, Castle Yard House, Castle Yard, Richmond TW10 6TF, U.K.

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# OVER THERE!

Leslie B. Bunder

Hello and welcome to Over There!, the column that gives you all the latest views and news going on in England.

First of all, thanks to all of you who have written to me with your opinions and views on the state of software being released. As I said before, the more comments I receive from you the readers the more I can make this column interesting, so get out your pens or word processors and send all letters to me, Leslie B. Bunder at the following address, 50 Riverside Close, Cuckoo Ave., Hanwell, London W7 1BY England. Don't forget to send the letters airmail. If you don't, it will take months for your letter to reach me. If you wish a personal reply enclose two international reply coupons and you'll hear from me. If I think your letter is good and you mention what computer you own, I'll even send you an English game for your computer, can't be fairer than that, can I?

The last time I wrote, I mentioned that Commando games were the big craze, this time I was hoping to tell you about another big craze in computer games but I couldn't find one!! So what I'll do is mention some of the better computer games around and if you want further information the address of the software house will appear at the end of the column. Don't forget the international reply coupons if you want the information.

The Game of the Month has got to be Back to the Future from Electric Dreams. 'Back To The Future' is very closely based on the film of the same name in which you, as Marty McFly, must get your future mom, Lorraine to fall in love with your future dad, George. If you don't, poor ol' Marty won't be around. The game features the hit song of 'The Power Of Love' which comes across quite well. Colors and backdrops are very well used and are based on some of those shown on the film such as

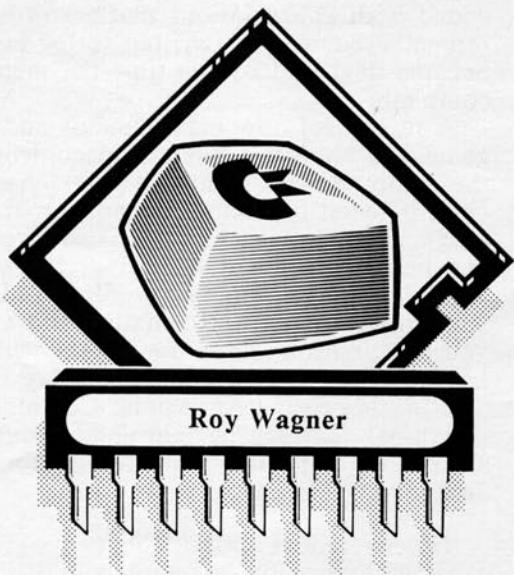
the school and Doc's house. 'Back To The Future' runs on the Commodore 64/128, All Amstrad and Sinclair Spectrum 48/128.

From Melbourne House, the company who brought out the excellent Karate game 'Way To The Exploding Fist' comes Rock'n Wrestle which, as the title suggests, is a wrestling game. The object of the game is quite simple, just play against a friend or the computer and pin your opponent to the ground till he submits. This is a great game, the graphics are large, colorful and smooth, while the sound effects are really atmospheric, you can nearly feel the pain of losing. Did I say losing, well it's more than likely you will against the computer when you've got players like... well check out the game and you'll find out. 'Rock'n Wrestle' runs on the Commodore 64/128, All Amstrads and Sinclair Spectrum 48/128.

If you like Trivial Pursuit, you'll be glad that a company called Anirog have brought out a game called Trivia which has 1400 questions on 6 different topics. 'Trivia' runs on the Commodore 64/128, Commodore C16, Commodore Plus 4, All Ataris, All Amstrad and Sinclair spectrum 48/128.

From Elite Systems, comes two more arcade conversions following on from the successful Commando games: Bomb Jack and Ghost 'n' Goblins. The games are very closely based on the arcade versions and run on the Commodore 64/128, all Amstrads, and Sinclair Spectrum 48/128.

'V' the TV series has now been turned into a computer game from Ocean. You play the role of Michael Donovan who must seek and destroy the enemy alien Mothership. The game features cartoon like graphics and is quite fun to play. 'V' runs on Commodore 64/128, All Amstrads and Sinclair 48/128.



## AMIGA PREFERENCES AND COMMODORE KEY

### COMMODORE KEY

#### NEW KID ON THE BLOCK

Accolade is a new software company, but the people there are not new to computer games. Alan Miller and Bob Whitehead worked at Atari and later went on to form Activision with two others. The new company carries on the tradition of quality computer graphics. One look at the new releases and one is awed with the images they are able to produce. They are "movie-like" in appearance and play. Movement from one screen to another is quick. The games are fun and impressive.

*Law of the West* is interactive western with you playing the sheriff. You must interact with various people around town. Try not to be too quick to use your gun; most interaction is peaceful. But every so often a bank gets robbed or someone insists on testing your reputation. This game is not very challenging, but a whole lot of fun.

*Hardball* is the best graphic game of baseball yet. It contains all the elements of real ball with full joystick control. You make ALL the strategic decisions of the manager and ALL the moves for each player. Sounds complicated, but it is really easy. For a fun game of baseball at home, this one is what all the others tried to be.

*The Dam Busters* is a simulation of a British Lancaster bomber mission to destroy three German power dams. You play the roles of all aboard the plane (pilot, navigator, bombardier, and gunner). The

graphics are again, excellent. Game play is relatively easy. The game is one of reflexes and shoot 'em out of the sky.

Some of the other new games from Accolade to look for are *PSI 5 Trading Company*, a space freighter management game, and *Fight Night*, a boxing construction set with emphasis on fun.

#### PLAY IT AGAIN PAUL

Paul Whitehead was a chess master at 15, a U.S. Junior Champion at 17, and then an American Open and Class Champion. Now in his twenties he enjoys teaching chess. He has joined with a very skilled programmer to produce *Paul Whitehead Teaches Chess* from Enlightenment Inc. The program is designed to teach even an absolute beginner how to play chess skillfully. The concepts taught are useful to even the middle level player.

The tutorial program is very nicely charted and numbered so that you can easily cover the elements of chess that you are interested in learning. The program covers all aspects of chess from the basic beginning elements on through tactics and strategy of openings, middlegame, and endgame. You can easily review what you have learned or jump to another area entirely. The graphic display is very colorful with the chess pieces very nicely defined. A tutorial help screen is always available at the press of a key.

Also included with the tutorial program (two disks) is a disk with "The Coffee House Monster", a chess opponent program by International Master Julio Ka-

plan. You can play a new game or one of the tutorial boards. You can even setup your own boards with your favorite chess problems. It has nine levels of play. You can play human against human, human against computer, or even computer against computer. You can replay or printout the moves, exchange sides, force the computer to move or take back a move. A play help screen is always available if you forget a command.

There were some minor elements of the programming that I found objectionable, but overall the program is an excellent way to learn about the game of chess. The tone of the tutorial is very understandable. This program is highly recommended.

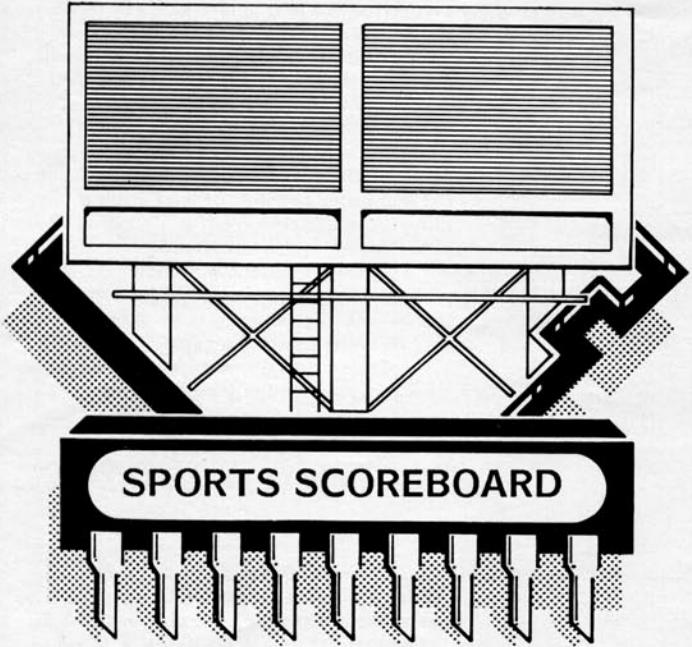
### AMIGA PREFERENCES

The initial wave of games for the Amiga has recently turned to a ripple. The early flood from Infocom, now includes all titles. Even their largest game, *A Mind Forever Voyaging*, loads entirely into the Amiga's memory. With the release of *Ballyhoo*, a circus mystery, Infocom has introduced a new concept to computer game marketing. They have made available a limited quantity of signed and numbered copies of the game that can be purchased directly from Infocom. This offering was made to subscribers of the New York Times.

*Brataccus* from Psygnosis Limited in England was released by Mindscape. (Versions also for the Fat Mac and Atari 520ST). This game truly represents the "lowest common denominator" software syndrome, in that it takes little advantage of the Amiga's features. Use of sound and color are minimal. Brataccus is a graphic adventure in which you seek evidence to clear yourself of crimes you are thought to have committed. In the course of your efforts you must defend yourself from hostile guards and villains. The game takes place on a colonized asteroid. Movement using the mouse or keyboard takes some practice. The game is well documented.

*AmigaBasic* from Microsoft, the BASIC that comes with the Amiga, is very powerful. To fully illustrate this, Jenday has released *Conversation With A Computer* by Gil Dodgen. Aside from using computer speech (standard on the Amiga), there are three activities; memory test, number puzzle, and a "pegboard" game. The program contains over 2000 lines of BASIC code. The excellent manual explains what the code is doing. It gives coded examples of nearly all of the powerful features of Amiga BASIC. This "game" is more of a learning tool than a true game.

*Software Golden Oldies* from Software Country (and distributed by EA) has been enhanced and released for the Amiga. It offers conversational versions of the original Adventure game and Eliza. Pong comes in the original black and white or with special variations in any of 4096 colors. The game of Life is very nicely enhanced with menus and use of mouse. These versions of four true classic games are like having a classic '57 Chevy with a digital dashboard and CD player.



## SPORTS SCOREBOARD

Rick Teverbaugh

Put up your dukes and prepare to defend yourself. If you thought you had to fight your way through this column every issue in the past, you ain't seen nothing yet.

Over the next several paragraphs, I'm going to try and cover six boxing games and five karate contests which should more than release any hostilities you might be harboring from the rough-and-tumble outside world. So let's tie on the gloves and come out fighting.

**Title Bout** (Avalon Hill; Atari, Commodore) Certainly the grandpa of the historical simulation games of pugilism. Before we get to the game and its many qualities, the first stunning fact that sets it apart from all the others are the number of boxers included. Over 500 come on the disk and you have the ability to increase that number to well over 600 with fighters you rate yourself.

The rating process isn't that difficult, especially if you have any familiarity with the board game of the same name. In fact, purchasing boxing card updates for AH is the best way to always keep this game current.

James and Thomas Trunzo created the game with a steady and loving respect for the sport. But in truth, neither was extremely thrilled with the original Atari version of the game. Probably the most universally hated aspect of that version was the 'conversation' between the fighters in the ring during the match. Thankfully that has been removed from the Commodore version.

What remains is a solid, if sometimes hard to follow, boxing game that can provide hours of enjoyment and realistic results. Of course, not every match will be one by the favorite, but that's realistic too. The reason that I call the game often confusing is that at the end of each round and before the fight, you are given a large array of facts and figures about your fighter. These can be very handy when selecting what strategy best suits him for a particular round. But all the figures are

coded with abbreviations that aren't easily remembered. A well-written set of instructions will become dogeared by the time the memorization is complete.

You control how many rounds and whether the game will have two humans in control or whether the computer will fight one side. The computer is a fine, if often predictable, manager. It will still be a tough chore to take a patsy like Alfredo Evangelista and beat Muhammad Ali.

Graphically, the game won't astonish you but it will impart enough information and action to let you imagination fill in the gaps. Overall, this is the boxing game that gets the most play in my ring.

**Ringside Seat** (SSI; Apple, Commodore) Many of the things that can be said good about this entry are echoes of positives mentioned above. Ringside Seat is very similar to Title Bout.

However, it is superior in two ways. One, you can create as many boxers as you'd like because all you need is a blank formatted disk, where Title Bout must use the disk that comes with the game. Secondly, Ringside Seat tells you in common fight terms the condition of your fighter and doesn't hide it in complex codes.

But there also are some strong disadvantages. Graphically, the game is a bit harder to follow because the figures are more stick-like and much smaller than in Title Bout. Part of the reason for that is the large amount of information passed along in running commentary during the bout. Another disadvantage is the limited number of boxers (50 to be exact) rated for the game. There are also no supplemental disks with additional boxers available from SSI, an unusual occurrence for an SSI sports game.

Overall, the game has just as believable results as anyone, but getting there just isn't quite as much fun..

**Championship Boxing** (Sierra; IBM, MacIntosh, Commodore) If options were the only things needed to make a great game, this one would be the best game in the world of any genre. If great graphics were the most important consideration, then this game would be heavyweight champ!

But if feeling like real boxing is a consideration, this game should throw in the towel. I know some of you might think I'm being too hard on this relative newcomer but let me give you some facts.

I've played 42 bouts using almost every historical combination you can muster with the boxers included in the game. Of those 42, none (as in zero) ever went past eight rounds. Even the lightest punchers against the best defensive fighters, still produced knockdown after knockdown, followed by TKOs and KOs.

I'm sorry, but I just don't believe that if Muhammad Ali, in his prime, and Larry Holmes would have met, that Ali would have knocked Holmes down three times and Holmes knocked Ali down once - in the first round.

The game does have some whimsical moments, like when you can create a kangaroo as the graphic image for one of your fighters. But if you expect realistic results from this game, at least the Commodore version I tested, the joke's on you.

**Star Rank Boxing** (Gamestar; Commodore) My belief in sports games is that if they feel like the

sport, they must be pretty good. But if they get your personally involved in the game as well, they must be great. Star Rank does both and I have no qualms about calling this a great game.

First of all, the game doesn't recreate any real boxers. You create your own boxing persona and then take him from the lowest ranking to perhaps, a shot at the title. Nearly 20 ring veterans stand in the way, so you'll need plenty of patience and lots of training to move up the ladder.

After you've made all the decisions, about his personality, trunk color, hair color and skin color, you pick an opponent either one or two steps up the ladder from your position and then pick what areas you need the most work in the number of weeks prior to the bout.

Once fight day rolls around, you'll need quick reflexes, stamina and a watchful eye on your boxer's condition to come out a winner. The joystick is used to control the movement of the fighters. You'll find the graphics quite a bit above average and the animation second only to Championship Boxing. After three of four matches with your fighter, if you're not totally involved with his progress and don't look forward anxiously to each and every fight, then boxing games are obviously not your bag.

**Pro Boxing** (Artworx; Commodore) There aren't as many options in this game, either in creating an individual boxer or in possibilities once you've entered the ring, but as a new entry, the game packs a solid punch.

Basically it's just you against the computer or another human, with each having fighters of identical capabilities. The game has a bit more ring movement possible than Star Rank, but the variety of punches is much more limited. Artworx is putting this out under its budget PX line. For those of you who aren't really sure whether boxing on a computer is for you, this is an inexpensive way to find out. I think you'll like it.

**Fight Night** (Accolade; Commodore) I wish I could say the same thing about Fight Night as I said about Pro Boxing. But if you're a real boxing fan, I think you'll be offended by this game. As good as Accolade's Hardball is, I was expecting much more out of this entry.

But as you might expect with boxers like Dip Stick, Kid Kastro and Hu Him in the stable of challengers, the entire game is merely for laughs. Dip Stick, for example, is most famous for his low blow, which almost always lands, does damage and goes unnoticed by the referee (if there is one).

The game could have been much better. The graphics are good and it is possible to create your own characters and save them to disk for future use. My only question is why would you want to?

**Competition Karate** (Motivated Software; Apple, Commodore) This is my favorite game of any of the 11 hand-to-hand combat games covered here. The game is a little like Star Rank Boxing in that it gets you involved with the characters you create. Those characters are saved and nurtured and trained into lean, mean, fighting machines.

But where the game goes beyond Star Rank is in the play of the game and the tournament concept. The game moves at a steady, yet slow enough pace to allow for strategy. Know your opponent, his strengths and weaknesses and you'll go far. How

far? Well, you'll be able to tell because the program keeps track of every student's progress and ranks the top 10 after each tournament.

Each character is assigned an instructor, which will affect what strengths and weaknesses he exhibits, but you also control part of the time he spends in the dojo and how he spends it. Game play can be controlled through the keyboard or paddle controls. Truly one of computer gaming's classic creations.

**Black Belt** (Earthware Computer Services; Commodore, Apple) If it weren't for Competition Karate, this would be the game all other karate games would be measured against. But, as it is, this is a fine game. For Black Belt you are identified by name, but only your record is kept.

As your record improves and you gain greater experience, your rank moves and you gain more possible moves within a match. You can spar against another human foe or take on the computer. There are six different levels of computer foe. Control during the match is by keyboard or joystick. The graphics are fluid and well-drawn. It is quite easy to see what you're doing and its effect on the other combatant.

**Karate Champ** (Data East; Commodore, Apple) The last of the karate games that plays like a sport, also plays like an arcade game, which can be good or bad depending on what you're looking for in the game.

In either a one-player or two-player mode, the game is fast-paced and requires almost immediate memorization of the joystick controls. There are 16 different movements possible during a match. Eight are selected with the joystick depressed and eight without.

You can choose the number of matches you want. Each match consists of a 30-second time limit or until one player scores to points against the other. A referee gives either a full point or a half-point to any player scoring a fall over the other. As with all Data East products, the graphics are very good. My only complaint is that some of the in-match options are counters for a move of your opponent, but there often isn't any time for those reactions.

**Kung-Fu Master** (Data East; Apple, Commodore) Much more a karate game with adventure elements thrown in. It looks much better on the Commodore than on the Apple.

This time these guys mean business. There are knives and bad guys ganging up on you from both sides. You are supposed to travel through the wizard's temple and rescue the fair maiden held captive there. Besides other kung-fu experts, there are dragons, snakes and killer bees. Good luck.

**Karateka** (Broderbund; Apple, Commodore) More like an adventure game with karate thrown in. Actually resembles a Chuck Norris movie in flavor.

There's another fair maiden to be rescued and some puzzles to solve along the way. Controls aren't as complex as with Kung-Fu Master and graphics are a cut better also, both on the Apple and Commodore versions.

-----  
That's it for now. See you next time. Be a good sport.



## Strategically Speaking

Strategically Speaking covers strategy game tips, including tips on wargames, sports games, economic and other "real life" simulations, and classic style games.

**DISCLAIMER:** The tips printed in SS are those of the authors. We try to avoid printing tips that don't work, but we cannot playtest all, or even most of them. So, let the player beware.

We pay \$5.00 for each Strategically Speaking tip used. Presently the bulk of tips submitted to CGW are on wargames. We also need tips on other types of strategy games as well. Tips can be mailed to Strategically Speaking c/o Computer Gaming World, P.O. Box 4566, Anaheim, CA 92803-4566. Try to keep tips under 250 words if possible.

### SEVENTH FLEET (Simulations Canada)

As the commander of the Soviet Pacific Fleet, send all Victor and Charlie class submarines (other than the one shadowing the Carl Vinson) to Yokosuka with orders to Shadow Enemy Task Force on turn one or as soon as possible. This should give you at least four subs in Yokosuka to challenge the Midway when it becomes available. With this number of subs shadowing the Midway, you should be able to cripple the CV before its ASW elements are able to eliminate your subs. If the Carl Vinson begins in the far south and Japan enters the war before the Midway becomes available, hit Yokosuka with every aircraft available. By doing this, you will gain the victory points for hitting Yokosuka and delay the arrival of the Midway and many Japanese reinforcements. The net results will be that the Carl Vinson will be on its own for so long

a period that you can deal with it at your leisure. The sum total of soviet strategy in Seventh Fleet reduces to keeping as large a force in the Sea of Okhotsk as possible while dealing with the American carriers one at a time.

Stewart McKames  
Orange, CA

### SEVENTH FLEET (Simulations Canada)

As the commander of the U.S. Seventh Fleet, only two rules need be remembered. First, always keep several submarines as escorts for your CV Task Groups. The second is to never initiate hostilities until the Midway and Carl Vinson are in two Task Groups in adjacent hexes. While it is expensive, the Soviets can maul any group which has only one CV's cap to protect it. If you keep two adjacent, you keep both under a two CV cap while using the Soviet limitation to ordering a strike on only one location. The cap should minimize the damage done by the heaviest Soviet strike while the splitting of the two CV's will limit any possible damage to only one of the two. With this formation and the possible addition of several Japanese Task Forces as decoys/screens, you should have no trouble sailing into the Sea of Okhotsk. Possible uses of your battle ship should also be considered. Armored as only WWII battle ships were, the Missouri is VERY hard to sink. Taking advantage of this, sent it towards Vladivostock on turn one. With luck it will be in bombardment range before the Kremlin becomes available. At worst it will gain points for bombarding Vladivostock, delay the arrival of some ships, and disrupt the availability of Soviet air elements.

Stewart McKames  
Orange, CA

### CARRIER FORCE (Strategic Simulations)

The documentation in Carrier Force recommends 7-8 search missions maximum. I've found that for the last three scenarios 10-12 can be used depending on the location of one's own carriers. During the launch phase send about 1/3 more than necessary and on the following air move phase land every third mission. The computer presents missions to be moved based on the mission number and assigns unused numbers as they are available.

Mix the mission numbers so as to be able to shift extra missions to a new area if the enemy is found. If necessary missions can be lost deliberately to enemy air cover (they would be destroyed on the ground anyway).

Attack missions should be launched in an order that will assure all searches in the area will have had a chance to look before they arrive. It can be very frustrating to locate the enemy after turning the attack mission the wrong way or run out of gas.

David B. Carlson  
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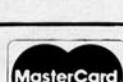
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# BALLYHOO

Continued

should know where to go next. The difficulty is that person standing in front of the trailer. He's there as a guard, and you won't get past him; you will just have to make him go away. Yet that shouldn't be too hard; look through your inventory and think about it. I'm sure you can get him very nervous very quickly.

Search the trailer carefully and take nothing for granted. You'll need a little (hehe) help, but that's easy. Unfortunately, just when you think that the game is over, you find out that it isn't. Munrab has the wrong idea about you, and the girl is gone again! Oh, the trials and tribulations of the amateur detective!

When you finally track everyone down, you begin to wonder if this is a replay of King Kong. Well, it isn't, but it's close enough. Of course, you know how to handle Mahler. However, it helps to be on the safe side. The roustabout can be useful, if you recall what he was doing when you first saw him. And let's not forget Jimi Hendrix, either.

After that, everything is pretty clear sailing, except that you will have to make one quick sidetrip. It's a bit of a drag, but I give you my pledge it's necessary.

Whew! After all that, it's probably going to be a long time before you visit the circus again (and I

don't blame you a bit!). Before we turn the lights out here, I'd like to give you an update on the *Kobayashi Alternative*. Articles for CGW usually have to be in about 2 months before publication. After my *Kobayashi* review was subbed, Simon and Schuster announced they were replacing the disks that had bugs in them. This information came too late to be included with the article. Therefore, anyone who has *Kobayashi*, and has discovered bugs in it, should send the original disk, plus a list of the bugs found, to: Prentice Hall, Route 9W, Englewood Cliffs, NJ 07632 Attention: Technical Support. You will get an updated, bug-free (we hope) version in return. Make sure you specify which computer you have.

And so it's that time again. Remember, if you have a problem with an adventure game, you can reach me in the following ways:

On Delphi: visit the GameSIG (listed under Groups and Clubs). On GENie: come to the Games RoundTable (type: Scorpia to get there). U.S. Mail: Send your questions, with a SELF-ADDRESSED, STAMPED envelope (not required for correspondents outside the USA) to:

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# READER INPUT DEVICE

## RID #27 (use card at pg. 5)

On this page a number of games are listed for evaluation. When evaluating a game consider such things as PRESENTATION (graphics, sound, packaging, documentation); GAME DESIGN (design, playability, interesting?); LIFE (does the game wear well?).

For each game you rate, place a 1 (terrible) through 9 (outstanding) next to the appropriate number. Leave blank any game which you have not played enough to have formed an opinion.

Please Mail R.I.D. #27 before April 30, 1986.

1. U.S.A.A.F. (SSI)
2. Battle of Antietam (SSI)
3. Battalion Commander (SSI)
4. Panzer Grenadier (SSI)
5. NAM (SSI)
6. Norway 1985 (SSI)

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Have you ever noticed how similar many adventure games are? Well, here is your chance to "design" one. Following a well established pattern, we provide you with the framework for your very own adventure game design. Get creative! We will publish the most interesting ones.

The (fill in blank) has been lost (or kidnapped). For whatever reason you are the only one who can save/find the lost/kidnapped (fill in the blank). Although your background (which, fill in the blank) indicates that you would be out of your mind to go on this perilous quest, you go forth. You are opposed by the evil (fill in the blank) who has sent, to attack you, armies of evil creatures such as (fill in as many blanks as you wish). Along the way you must figure out certain puzzles such as (fill in a few blanks).

Although you start your quest with only the clothes on your back and (fill in an amount of money) you can buy such weapons as (fill in some blanks) and eventually learn such magic spells as (fill in some blanks).

In the end you are victorious and are ready to go onto Generic Adventure II, III, IV, etc. (pick one).

Mail entries to CGW GENERIC ADVENTURE, P.O. Box 4566, Anaheim, CA 92803.

7. Silent Service (MicroProse)
8. Conflict in Vietnam (MicroProse)
9. AutoDuel (Origin)
10. Moebius (Origin)
11. Wizard's Crown (SSI)
12. Ultima IV (Origin)
13. Heart of Africa (EA)
14. Bard's Tale (EA)
15. APBA Baseball (Random Hse)
16. NFL Challenge (XOR)
17. JET (SubLogic)
18. Under Fire (Avalon Hill)
19. Rings of Zilfin (SSI)
20. Where Carmen SD? (Brdrbnd)
21. Phantasie II (SSI)
22. Hardball (Accolade)
23. Kobayashi Alt. (Simn Schstr)
24. Law of the West (Accolade)
25. Star Fleet I (Cygnum)
26. The Eidolon (Epyx)
27. Koronis Rift (Epyx)
28. Fight Night (Accolade)
29. Spellbreaker (Infocom)
30. Championship LodeRunner (Brdrbnd)
31. Hacker (Activision)
32. Little Comp People (Activision)
33. Dam Busters (Accolade)
34. The Halley Project (Mindscape)
35. Psi 5 Trading Company (Accolade)
36. Europe Ablaze (SSG)
37. Elite (Firebird)
38. Seventh Fleet (SimCan)
39. Rommel (GDW)
40. At the Gates of Moscow (SGP)

41. Enchanter (Infocom)
  42. Black Belt (Earthware)
  43. Berserker Raids (Berserker)
  44. Competition Karate (Motivated)
  45. King's Quest II (Sierra)
  46. The Goonies (Datasoft)
  47. Alpine Encounter (Random House)
  48. Battle of Chickamauga (GDW)
  49. The Dolphin's Rune (Mindscape)
  50. Countdown to Shutdn (Activision)
51. What is your age?
52. What is your highest level of education attained?  
(1) High School (2) College (3) Graduate School
53. How much do you spend each month on computer games?
54. Which company do you feel is currently making the best computer game software?
55. Do you plan to purchase any of the following computers  
in the next 12 months?  
(1) IBM (2) Mac (3) Atari ST  
(4) Amiga
56. What is your overall rating for this issue (1-10)?
57. Do you ever purchase games or computer products by mail order (Y/N)?

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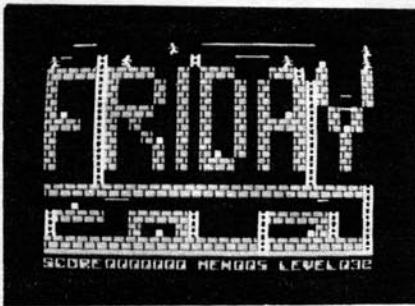
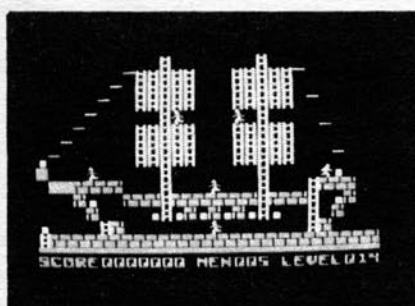
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4.5 - Staying Alive in Wizardry; Adventure Gaming Conference; CGW Baseball League; The Computer as Opponent; Sundog; CGW Computer Game Conference; Road to Moscow; Strategy Game Tips; Deadline Tips; Seven Cities of Gold Designer Notes; Rail West; and more!

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#25 - Under Fire!; Ultima IV - tips; The Year in Review: Adventure G... Service review; Kampfgruppe replay; 1... SOLD OUT ... of Moscow; Heart of Africa; and more!

#26 - Conflict in Viet Nam; Inside Ultima IV; The Halley Project; Silent Service Designer's Notes; The Kobayashi Alternative; Spellbreaker Tips; Koronis Rift; Eidolon; Story Tree; and more!

2.5 - Software Piracy; Starblazer; Galactic Gladiators; Guadalcanal Campaign; Robotwar Tournament; The Road to Gettysburg; Cytron Masters; Starship Commander; Invasion Orion; and more!

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4.4 - Jupiter Mission; Fifth Eskadra; Excalibur review and Designer's Notes; War in Russia; President Elect and 1984; Lode Runner Contest; Fighter Command; Galactic Gladiator Scenarios; Flight Simulator II and Solo Flight; Crypt of

## UNDERFIRE (con)

and another German falls. It is our 6th Squad (infantry) that next pays a heavy price for these last few yards, eight more of our men fall. 3rd Squad attacks and three more Germans are hit. A final burst of machine gun fire and the 6th squad is wiped out.

*Ralph: The Germans are in the Objective Area in force! The strategy the program finally selected was to station small picket units around the dacha to slow the advance while the main force was dug in at the Objective Area.*

## Turn 10

Next a Hummel, a German self propelled gun emerges from behind the building! 5th squad hits the front of the monster with a bazooka round but suffers seven killed from its heavy machine gun. Meanwhile squads 3 and 5 continue firing on this new threat. Seven more men from the 3rd squad are hit. But a final bazooka round claims the Hummel and the four lone survivors of the 80 So-

## BULL SESSION

Since the beginning of wargaming gamers have always indulged in the traditional "after game" second guessing and a cold beverage or two. So without further ado...

*Ralph: Bill, your overall strategy was excellent. Moving your three groups in a pincer fashion has more than a few merits. But there's just a few decisions I would have made differently!*

Bill: I was waiting for that "But".

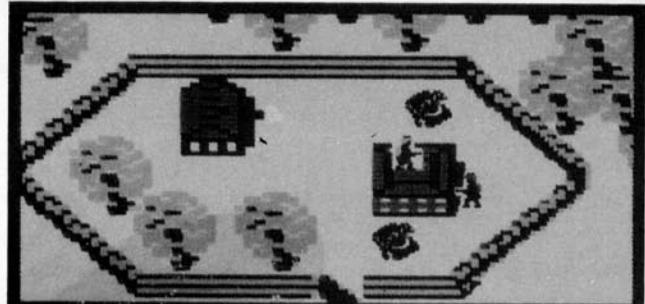
*Ralph: I'd wouldn't have chosen the COMMAND OPTION. I prefer PLAYER CONTROL and the ability to give direct combat order to "all" the units on the board.*

Bill: I know Ralph but "Real Men" sometimes prefer to simulate command and control problems as well as tactical combat.

*Ralph: Well you'll agree then that trading in those (3) useless SU76's for (2) T-34's didn't achieve the desired result? That third tank would have come in real handy, especially since their didn't seem to be a German tank threat.*

Bill: Yeah, I admit I wish I could have taken that one back.

*Ralph: I don't think delaying the Northern Group's movement at the beginning of the game helped. There was only one German unit in the way of the Northern Group and it was tied up with the Center Group! By moving the Northern Group on turn 1, there would have been no need to shed the weight of their Heavy Machine Guns. And those Machine Guns would have been very, very useful when the final push on the Dacha came! Or you could have reversed the rolls of the Northern and Center groups, by moving the Northern Group and using the Center Group for cover fire. The Northern Group would have been fired on at a longer range by the German unit and the Center Group would have provided cover fire from the protection of the woods at closer range.*



viet soldiers who began this battle break into the German command post.

## Epilogue

Did they succeed? After the game it was revealed that three German squads were left in the building. Did the Soviet troops have time to throw their grenades and wreak the CP? Or did they fail, and fall under a hail of German bullets, needlessly. In UF! the game goes on long after you turn off the computer.

Bill: I agree to a point. I was really concerned that I didn't have any real advantage in numbers or firepower. That open field seemed like a long way to go and I felt that I needed someone to provide cover fire to support the initial units making the crossing if they got into trouble. As for substituting the Northern Group to make the initial dash, well, I felt the field of fire that the Northern Group had was superior and I knew that Center Group would have a shorter distance to cover. I didn't think it was going to be easy and I wasn't!

*Ralph: Well I must admit that the Southern Group couldn't have had worse luck! It as the most powerful group and it's loss denied the team most of it's support weapons.*

Bill: I Know! I was counting on either the mortar team or the T-34 making it to the Dacha. How do you think it might have gone if we had it to do over again Ralph?

## THE ROAD NOT TAKEN

Lt. Kalishnikov reporting - I have positioned my two remaining SU-76's in the woods to the west of the Dacha. Three full infantry squads with heavy machine guns are ready to support the final attack. With a shout our infantry leap over the hedge and rush the west side of the Dacha. A German Machine Gun opens up on one squad. Half our brave men fall. Both our SU-76's return the fire and destroy the gun emplacement. Next a Hummel appears to the South. It fires on one of our 76's and misses! (I'm in the woods and he's firing on the move) Both SU-76's return the fire, one misses but not the other! There are no German survivors. With a rush we burst into the Dacha. Our superior fire power, three heavy machine guns, grenades and two supporting tanks is more than a match for the Germans. The Dacha is ours!!!

# READER INPUT DEVICE

Now that Computer Gaming World is published nine times per year there will be a delay of one issue in reporting R.I.D. results (i.e. the results of R.I.D. questions in CGW #26 will be reported in CGW #28). Because of this change we have no new ratings for this issue. The following game rating list is the same list that appeared in issue #26.

After some five years as the highest rated

computer adventure game, Wizardry has finally had to surrender its top spot (and second spot too, for that matter). Origin Systems' Ultima IV is the new adventure game champion followed by Electronic Arts' Bard's Tale.

SSI's Kampfgruppe continues to dominate the strategy game list although it is being closely challenged by Micropose's Silent Service. Look for the updated ratings in our next issue.

## Strategy

Name	Mfg	Machine	Tms Rtd	Avg Rsp	Rating
Kampfgruppe	SSI	C,Ap,At	3	139	7.94
Silent Service	MicPr	C,At	1	123	7.90
Europe Ablaze	SSG	C,Ap	1	31	7.81
Mech Brigade	SSI	C,Ap	3	72	7.70
M.U.L.E.	EA	C,At	13	81	7.51
War in Russia	SSI	Ap,At	6	71	7.40
Decision in Desert	MicPr	C,At	2	45	7.33
Ancient Art of War	Brodr	I,Mac	5	30	7.32
Heart of Africa	EA	C	1	40	7.28
Crusade in Europe	MicPr	C,Ap,At	4	84	7.243
Fighter Command	SSI	C,Ap	8	43	7.24
Guadalcanal Camp	SSI	Ap	9	48	7.24
Seven Cities Gold	EA	All	7	118	7.20
Carriers at War	SSG	C,Ap	4	81	7.17
Reach for Stars	SSG	C,Ap	4	50	7.12
Combat Leader	SSI	C,At	5	56	7.11
Computer Baseball	SSI	All	6	36	7.10
Micro League BB	MicLg	All	3	84	7.09
Galactic Glad.	SSI	Ap,I	3	32	7.07
Operation Mkt Grdn	SSI	C,Ap,At	4	58	7.06
Flight Sim II	SubLg	C,Ap,At	5	91	7.05
Colonial Conquest	SSI	C,At	2	59	7.05
Carrier Force	SSI	C,Ap,At	5	108	7.04
Field of Fire	SSI	C,At	4	72	7.01
Under Fire	AH	Ap	1	23	6.98
Breakthru Ardennes	SSI	C,Ap,At	3	44	6.95
Computer Ambush	SSI	C,Ap,At	5	46	6.93
Excalibur	Atari	At	1	40	6.85
Cosmic Balance	SSI	C,Ap,At	5	84	6.83
Bomb Alley	SSI	Ap	4	32	6.82
Eastern Front	Atari	At	4	61	6.81
Southern Command	SSI	Ap	5	40	6.79
Star League BB	Gmstr	C,Ap	1	73	6.78
Gato	SpmHbt	Ap,I,M	3	79	6.77
Gulf Strike	AH	At	4	33	6.75
Geopolitique 1990	SSI	C,Ap	3	29	6.73
Universe	OmTrn	Ap,I,M	3	46	6.73
Kennedy Approach	Micpr	C,At	4	48	6.67
North Atlantic 86	SSI	Ap	2	72	6.65
Knights of Desert	SSI	All	5	63	6.61
Rails West	SSI	C,Ap,At	3	68	6.57
Battalion Cmdr	SSI	C,Ap,At	1	44	6.57
Computer Qrrbk	SSI	C,Ap,At	2	91	6.48
JET	SubLg	I	1	29	6.48
Battle for Normandy	SSI	All	3	59	6.45
Robotwar	Muse	Ap	3	37	6.44
Chicamauga	GDW	At	1	26	6.38
Imperium Galactum	SSI	C,Ap,At	2	104	6.37
Objective Kursk	SSI	C,Ap	1	65	6.37
Broadsides	SSI	C,Ap,At	4	119	6.23
Andromeda Conq	AH	Ap,At,I	1	40	5.67
Dnieper Rvr Line	AH	All	1	46	5.00

## Adventure/Action

Name	Mfg	Machine	Tms Rtd	Avg Rsp	Rating
Ultima IV	Origin	C,Ap	1	102	7.99
Bard's Tale	EA	C,Ap	1	57	7.89
Wizardry I	SirTe	Ap,I	16	73	7.76
Ultima III	Origin	All	10	107	7.64
Enchanter	Infcm	All	1	28	7.50
Phantasie	SSI	C,Ap	4	75	7.41
F-15 Strike Egl	MicPr	All	5	140	7.21
Knight of Diamonds	SirTe	Ap	11	53	7.19
Legacy of Llygamyn	SirTe	Ap	7	58	7.18
Archon I	EA	All	10	98	7.14
Choplifter	Brodr	All	4	79	7.13
One on One	EA	All	7	74	7.13
Questron	SSI	C,Ap,At	5	97	7.13
Zork Series	Infcm	Ap,At,I	7	122	7.09
Pinball Con Set	EA	C,Ap,At	4	47	7.08
Lode Runner	EA	All	6	60	7.07
Sorcerer	Infcm	All	5	58	7.07
King's Quest II	Siera	Ap,I	1	27	7.07
Ultima II	Siera	Ap	8	61	7.00
Ultima I	CalPc	Ap	2	48	6.96
Deadline	Infcm	Ap,At,I	3	44	6.94
Galactic Advntrs	SSI	Ap,At	4	35	6.90
Hitchhiker's Guide	Infcm	All	4	108	6.86
Olympic Decathlon	Micsf	All	4	63	6.86
Planetfall	Infcm	All	3	51	6.86
Summer Games	Epyx	C,At	2	35	6.79
Racing Des Set	EA	C	3	49	6.78
Adven Con Set	EA	C,At	3	57	6.72
Ballblazer	Epyx	C,At	3	66	6.68
Rescue Fractalus	Epyx	C,At	3	71	6.68
Wishbringer	Infcm	All	2	42	6.68
Rescue Raiders	SirTe	Ap	3	40	6.67
Archon II	EA	C,Ap,At	4	76	6.64
Karateka	Brodr	C,Ap,At	3	79	6.64
Suspended	Infcm	At,Ap,I	6	61	6.63
Spy vs Spy	FrsSt	C,Ap,At	1	25	6.56
Mig Alley Ace	MicPr	C,At	3	40	6.55
Super Bowl Sunday	AH	C	2	30	6.53
Suspect	Infcm	Ap,At,I	2	48	6.39
Infidel	Infcm	All	3	52	6.38
Gemstone Warrior	SSI	C,Ap,At	3	76	6.36
Mail Order Monstr	EA	C	1	48	6.35
Sky Fox	EA	C,Ap	2	107	6.30
Six Gun Shootout	SSI	C,Ap,At	3	69	6.29
Blue Max	Synps	C,At	1	133	6.20
Music Con Set	EA	C	1	43	6.17
Seastalker	Infcm	All	1	46	6.17
Witness	Infcm	All	3	43	6.10
Murder on Zinder	EA	All	4	71	6.08
Zenji	Actvs	C,Ap	1	28	5.54

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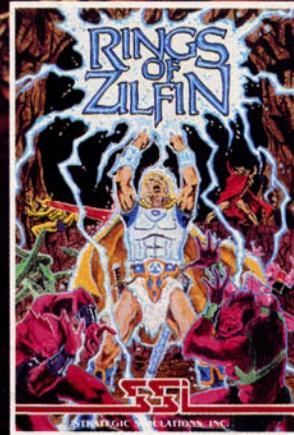
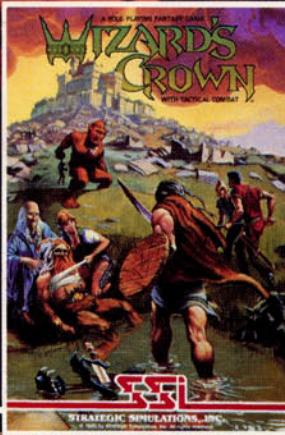
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