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THE SCROLLS OF ABADON: Billed as an "arcade adventure," TSOA utilizes the 3D view found in such games as Realm of Impossibility (ex-Zombies), Jupiter 1999, and Space Cowboy. You must clear each level of jewels as you wander through enchanted chambers. You discover scrolls that aid you. For example, after picking up a jewel an arrow appears which limits the direction in which you can traverse that "square". However, you may find a scroll that shows you how to overcome this travel limitation. Off course, there is a stable of nasties that attempt to thwart your progress. C-64 and Atari.

GHOSTBUSTERS: Based on the movie, GB showcases the graphics and sound capabilities of the C-64. You are granted a Ghostbusters franchise. You use your initial $2000 to purchase a vehicle and equip it with ghostbusting hardware. The program is well executed and will appeal to those that have seen the movie. C-64.

PARK PATROL: Arcade game in which you, as the park ranger, keep the park clean and safe. You must battle giant ants, poisonous snakes, deadly swamps, and killer turtles, not to mention litter. Atari, C-64.

SPACE SHUTTLE: A pilot's seat view greets you in SS as you blast off in a nice launch sequence. Once in space you dock with a satellite. Then you return to earth and land your craft on a desert runway. OK as an arcade game, but not as realistic or educational as RENDEVOUS by EduWare/Peachtree. C-64.

RIVER RAID: Commodore disk version of Activision's popular strafing arcade game. Destroy enemy tankers, helicopters, fuel depots, jets, hot-air balloons and bridges before your jet crashed or runs out of fuel.

ZENJI: This is the most interesting title in the Activision group for strategy gamers. The theme is loosely based on Eastern religion or mysticism. You must turn various elements (which create pathways) in such a way that all paths are connected.

Then you will have achieved Zenji. Off course the things of "this world" (flames of desire and illusions) hinder you. The game is an interesting combination of mental exercise (figuring how to align the sections) and arcade reflexes (avoiding the desires and illusions). C-64.

ZONE RANGER: Based on the old Astroids theme but with a lot more detail. In addition to a variety of enemy vessels and the ubiquitous asteroids, there are blackholes that transport you to new locations and mazes. C-64.

CLEAR FOR ACTION: A game from the age of fighting sail. Up to eight ships can be in a game. Each ship can have its own captain. Highly playable, this is one Avalon Hill's best releases. Atari.

BREAKDANCE: All right guys and gals, you finally get to figure out how they do the moonwalk! Here's a "fresh" game that lets you "boogaloo" by the bytes. Three games
are included: Hot Feet Dance Contest, Battle the Rocket Crew, and Perfections Dance Puzzle. Additionally you can choreograph your own dance and play it back on the computer. And if you are really bold, you are given the instructions on how to perform the steps in actual breakdancing. Here's the editor of CGW moonwalking around the Consumer Electronics Show; fresh, man, fresh.

MONTY PLAYS SCRABBLE: From one to four can play in this computer version of the board game classic. Monty (the computer player) can be set at one of four skill levels. The game is by Leisure Genius but is distributed by Epyx. C-64.

PITSTOP II: Exciting racing game that pits you against a friend or against the computer. The split-screen gives separate views for each driver. C-64.

WORLD'S GREATEST BASEBALL GAME: With a title like that, you're just asking to get shot down. Ok, bang! What is billed as a statistics baseball game is, in reality a close cousin to the pure arcade STAR LEAGUE BASEBALL (SLB). The only stats that are considered for batters are batting average and home runs. For pitchers, all that is considered is W/L record and ERA.

As a stat game WGBG is disappointing. But as an arcade game it is on par with SLB. Both look and play similar and good entries in the "beer and pretzel" league. First Star Software 18 East 41st St. New York, NY 10017

SPY VS. SPY: MAD Magazine's famous spies battle it out in a split level game in which you and your opponent set traps for one another. Using what First Star calls Simulvision® and Simulplay®, players each play on their own screen simultaneously. For one or two covert agents. The one player version features five separate levels of computer intelligence. C-64.

Gambit
P.O. Box 70858
Houston, TX 77270-0858
WEREWOLF!!: A hi-res adventure game with animation. Speech and sound enhanced if you are using a Mockingboard®. Written by the author of Expedition Amazon, Werewolf incorporates Pythonish humor. Apple.

Gamestar, Inc.
1302 State St.
Santa Barbara, CA 93101

ON-COURT TENNIS: Very nicely done tennis game for the C-64. You can choose one of four basic tennis players (who are loosely modeled after famous pros). You also choose court type (grass, clay, hard). Play against the computer or another person. The game has a realistic feel to it. Just the thing if your real match is rained out.

Lance Haffner Games
P.O. Box 100594
Nashville, TN 37230

3 IN 1 FOOTBALL: A text-only simulation of college and pro football. The game comes with 95 college teams from '83, 18 teams from the '83 USFL, and 28 teams from the '83 NFL. The '84 college and pro teams will be available by Christmas ($12).

The offense has 12 plays plus the kicking game to choose from. The defense can choose from six formations. A scouting report allows you to see the strengths and weaknesses of the teams. The end game stats are very detailed and can be sent to the screen or a printer. You can play against a human or against the computer (however, the computer coach isn't all that bright). We would have liked to see a probabilities chart as was included in COMPUTER QUARTERBACK. However, at $24.99 this Apple game is not a bad buy (especially as a two-player game).

Infocom
55 Wheeler St.
Cambridge, MA 02138

CUTTHROATS: Another exciting game from Infocom (see Scorpion's Tale in this
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- **SEVEN CITIES OF GOLD**
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issue for tips on Cutthroats). Infocom has always been known for their innovative packaging. However, if you own more than a couple of their games, you know what a pain it is to store those multi-shaped and sized products. (Has anyone found a decent way to store Starcross?). With Cutthroats, Infocom has gone to a new book-like packaging that we applaud. The package is small and compact (compared to their old products). Zork, Starcross, and Suspended are all in the new packaging. Before the end of the year, the entire product line will be "converted." Where do we send our old games to get the updated version of the package (hehe)?

Motivated Software Inc.
80 Rancho Dr.
Mill Valley, CA 94941

COMPETITION KARATE: Can anything good come out of Marin County? Yes! And one of them is this initial release from Motivated Software. CK is a detailed game of karate which will delight karate fans as well as provide a good game for those of us a bit more sedentary.

CK is a role-playing strategy/action game that allows you to create teams of progressing fighters. The game includes multiplayer participation, realistic combat, work-outs with instructors (to improve one or more of your nine rated characteristics), five martial arts styles, belt rank promotions, four tournament divisions, etc.

A sequel is in the works that will permit retired red belts to play in a personal quest adventure game. CK is the best initial release from a small company that we have seen in awhile. A review is forthcoming in our next issue. Apple. $34.95. C-64 in the works.

Signal Computer Consultants, Ltd.
PO. Box 18222
Pittsburgh, PA 15236

SONAR SEARCH: A strategy-action game based on the battle of the North Atlantic shipping lanes during WWII. The player directs a search and destroy mission against five enemy submarines (using three destroyers). There are five play levels. An average game lasts 15 to 30 minutes. C-64. $29.95.

TRAIN DISPATCHER: A game that simulates control of railroad operations over a 150 mile territory. The player, as Dispatcher, must, during his eight hour shift in the Centralized Traffic Control Office, maneuver up to 12 trains across the territory and into yards at each end. C-64.

Windcrest Software
PO. Box 423
Waynesboro, PA 17268

BASEBALL'S BEST: An Atari stat-based baseball game with interesting graphics. Hit a deep fly and the "camera" switches to a side view of the fields playing back to play the ball. Steal a base and the dust flies as the player slides in.

Stats are based on defensive rating, batting average, basic control probability (for pitchers), total average (which is the ratio of total bases to total outs), and probability of outs (for pitchers). Atari $29.95.

PANZER WAR: Basically a tank arcade game, PW adds the twist of a strategic map. Move your forces on the strategic map in monthly turns. When units end the strategic move next to one another on a battle card begins. Four scenarios. One or two players. Atari. $29.95.
Using SSI’s Carrier Force, I recently replayed the Midway scenario solitaire against the computer at level three with random setup. This scenario is probably more similar to the actual battle in solitaire play than in the two-player mode: The program usually follows the historical IJN plan for a dawn air launch against Midway on June 4, 1942, but a player might not make this air strike.

I recorded most positions, and after the game, I loaded the saved positions in the two-player mode in order to use “hindsight” to analyze the replay.

**PRE-GAME PLAN**

The USN player has the advantage of surprise — I know the computer-controlled Japanese player will probably attack Midway, but it does not “know” that I have carriers near Midway. This is historically accurate, as the US had cracked the Japanese code and seaplanes from Midway had sighted the approaching transports on the previous day of June 3.

I planned two main attacks:

1) Launch a major strike at dawn on June 4 before my seaplanes could spot the enemy. I hope to hit the enemy carriers first while they are readying aircraft or retrieving their Midway strike. If there are no targets within range, I can recover my strike in safety.

2) Detach seven cruisers and send them westward to hunt the Japanese transports. There is a risk of encountering Japanese battleships, but I will rely on seaplanes to search the approaching transports on the previous day of June 3.

I planned to use small missions of about 14 aircraft each in order to maximize range. The TBD’s are weak and inaccurate, therefore I would not send them out except in a desperate situation, or to finish off cripples. The land aircraft based at Midway are also weak, but since I expected to lose Midway eventually, I planned to send them out with my own launch on June 4.

I would concentrate my submarines at Midway where they should eventually find lots of targets.

**THE REPLAY**

On the first game turn, 500 hours June 4, both of my carrier task forces are located at 22,15 with the wind from the NE. I reform the seven CAs into TF13 (task force 13), which turns west to hunt the transports. I concentrate the three CV’s, all the DD’s and Atlanta into TF12. My subs turn toward Midway. Midway launches seven seaplanes, and readies all aircraft except the weak LSB2U’s. TF12 readies 88 SBD’s and 20 F4’s.

After the game, using “hindsight” from the saved game position, I see that the Japanese on this turn readied a massive air strike for its dawn launch against Midway.

On the next turn, 600 June 4, TF12 launches eight missions comprising 108 aircraft, and readies all remaining SBD’s plus 55 F4’s. Midway launches everything except the LSB2U’s, TF3’s and the remaining seaplanes. My seaplanes search the critical hexes located three to five hexes west of Midway. They find four CV’s with escorts at 17,18 and one CV with escorts at 16,18.

Figure 1 shows the position of all TF’s at the conclusion of the 600 turn. The encircled area marks the area searched by my seaplanes. I did not spot TF3 until it reached Midway on June 5.

On the 700 June 4 turn, the IJN air strike hits Midway with 30’ damage and destroys all seaplanes on the ground. TF12 launches the last 21 SBD’s with only 3 F4’s for escort. The level bombers from Midway and about 30 SBD’s find and attack the IJN CV’s at 17,18. Unfortunately, they report only three bomb hits.

**TASK FORCES AT 600hrs JUNE 4**

<table>
<thead>
<tr>
<th>TFs 1-9 are Japanese, TFs 10+ are American. Principals ships listed.</th>
<th>Most TFs also contain supportscreen ships such as DDs and CLs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF1</td>
<td>Four CVs, Two BBs</td>
</tr>
<tr>
<td>TF2</td>
<td>One CVL, Two BBs</td>
</tr>
<tr>
<td>TF3</td>
<td>One CVL, Two BBs</td>
</tr>
<tr>
<td>TF4</td>
<td>Four Cruisers</td>
</tr>
<tr>
<td>TF5</td>
<td>Transports</td>
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<tr>
<td>TF6</td>
<td>Transports</td>
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<tr>
<td>TF7</td>
<td>Seaplane ships</td>
</tr>
<tr>
<td>TF8</td>
<td>One Submarine</td>
</tr>
<tr>
<td>TF9</td>
<td>Submarines</td>
</tr>
<tr>
<td>TF11</td>
<td>Midway Base</td>
</tr>
<tr>
<td>TF12</td>
<td>Three CVs</td>
</tr>
<tr>
<td>TF13</td>
<td>Seven CAs</td>
</tr>
<tr>
<td>TF14</td>
<td>Submarines</td>
</tr>
<tr>
<td>TF15</td>
<td>Submarines</td>
</tr>
</tbody>
</table>
hits. With hindsight, I see that Kaga was hit with 22% damage and a fire raging out of control at level 12. The IJN search planes sight TF12, and all the enemy bombers are rearmed with anti-ship ordinance.

On the 800 turn, TF12 is at 23,15, six hexes from the enemy CV’s. About 60 SBD’s make their attacks on the enemy CV’s at 17,18 and claim ten bomb hits! I get confirmed sightings of many enemy transports at 17,19.

On the next turn, 21 SBD’s claim three more hits on the IJN CV’s at 17,18. They report that two CV’s are severely damaged, with a third lightly damaged. I now believe that I have virtually accomplished my major objective of sinking two IJN CV’s, therefore I plan to retreat my own CV’s to the NE. If the enemy fleet withdraws, my CV’s can return to finish off any cripples. Using hindsight after the game, I discovered that my pilots had actually inflicted more damage than they claimed:

Akagi-31% damage, fire level 10
Kaga-91% damage, fire level 25
Zuiho-76% damage, fire level 21
Hiryu-24% damage.

Soryu was unhurt, as well as Hosho, which remained undetected with TF3 to the north. On the 1000 turn, TF12 is hit by about 30 IJN bombers. They claim two torpedo hits and two bomb hits. Hornet receives only 2% damage, but Yorktown has 26% damage with speed reduced to 22. I abandon Yorktown into a new TF16 in order not to slow the retreat of TF12.

Ironically, the technological “advantage” of radar contributed to the crippling of Yorktown. On the previous turn I received a false radar report of an incoming air raid on Midway. I diverted 36 F4’s from TF12 toward Midway, and these fighters were unable to intercept the attack on Yorktown. Unfortunately, this game has no option for court-martialing radar operators!

Most of my returning morning strike make forced landings at Midway, but about 24 aircraft make it back to TF12. The Midway airbase is now operational again, and I plan to continue the air battle from Midway while my own CV’s escape.

Beginning at 1200, Midway and TF12 launch my afternoon air attack of over 140 aircraft, again divided into many small missions of about 14 aircraft each. During the afternoon, they claim six bomb hits on the remaining CV’s still located at 17,18, plus one hit on a BB and two hits on a CA. A second, very small, IJN air strike on TF12 scores no hits.

The first surface gunnery battle occurs at 1200 in 20,17 when TF13 collides with the fast IJN cruisers of TF4. I claim eight gun hits to their seven, but hindsight shows that my CA’s took the worst of it. Two IJN CA’s have 25% damage but no speed loss. Both Astoria and Pensacola have heavy damage, fires, and speed reduced to 22. I evacuate both ships in a new TF17 in order not to slow the retreat of TF13, which continues to hunt the transports. During the afternoon, the IJN makes two small air attacks on TF17, and scores two bomb hits on the stricken Astoria. By 1600, TF12 is safely at 28,13, eight hexes from the IJN CV’s. My returning afternoon air attack begins landing at Midway. It is now a race to see whether I can shuttle the carrier planes from Midway to TF12 before the IJN BB’s plaster the airbase. I lose the race. At 1600 the IJN begins the first of many devastating bombardments of Midway. Midway damage is 48%, and ten aircraft are destroyed on the ground. I can continue to land aircraft, but none can launch from Midway unless I can repair the airbase. Except for about 20 TBD’s on TF12, my entire bomber force is now trapped at Midway until the base is repaired.

On the positive side, the IJN only made four relatively weak air attacks against my ships on June 4. By 1800 I am beginning to suspect that I may have crippled most of the IJN CV’s. For the night, I decide that TF13 will continue the risky business of hunting transports. I will station TF12 about five hexes east of Midway. If the enemy fleet retires, TF12 will be in a good position to recover the carrier aircraft from Midway, and pursue the enemy. However, if Midway falls during the night, TF12 can run eastward on June 5. The crippling of Yorktown is less significant now; with my heavy aircraft losses I no longer need a third CV.

ERRATA: We apologize to Jim McPher-son for failing to give him credit on a review in our last issue. Jim wrote the LORDINGS OF YORE review on page 38 of the October issue.
At 1800 on June 4 TF13 catches transport TF6 at 19,18 and a second surface gun battle erupts. I claim 41 gun hits on transports, and 13 more on destroyers. The IJN claims two gun hits and two torpedo hits on my CA's. Portland has significant damage, but I cannot detach her as I am running short on extra TF's in memory. I estimate that I sank ten ships. For the first time, I begin to think there may be a chance to save Midway if I can sink more transports.

Figure 2 shows the position of all TF's at 2000 on June 4. Hindsight reveals that Kaga and Zuiho have sunk, and Akagi and Hiryu are crippled. Soryu is operational, but has 9% damage. Little Hoshio is the only undamaged IJN CV.

At 2200 on June 4 my subs make their first attack on the IJN ship. In this replay they made a total of 19 attacks on various ships, but claimed only four torpedo hits. The subs were not a major factor in the replay, but none were lost.

TF13 overtakes transport TF's 5 and 9 at 21,17 at 100 on June 5, only one hex short of Midway. In a night gunnery battle, I claim 51 hits on various transports, plus 16 hits on escorts, including a light cruiser. I estimate that I destroyed at least ten more transports. The IJN claims ten gun hits and two torpedo hits on my CA's. Minneapolis and Northampton are badly damaged, so I detach them in a new TF18 which turns SE for Pearl. TF13, now with only three CA's left, continues to search south of Midway for a few more hours. Before dawn, TF13 turns east to retreat.

The Japanese bombarded Midway sporadically throughout the night of June 4-5 and the next day, and destroyed about 30 more aircraft on the ground. But they landed a total of only 14 assault points.

One hour before dawn on June 5, TF12 at 25,16 begins launching ten search missions of one F4 or TBF each. I fear enemy battleships may be hunting my CV's, so my primary search is around TF12. Later, I extend the search over a wide area to the west and south of Midway. At 700 I find all of the IJN surface fleet at Midway. They remained at Midway throughout June 5 and most of June 6. Yorktown exits the main map to safety at 700 June 5.

At 900 an IJN air raid on TF12 claims two bomb hits, and Enterprise has 18% damage. My plan now is to retreat all surface ships SE away from Midway. I am unable to strike back as Midway is unoperational, and TF12 has only F4's and the weak TBD's. New Orleans and Vincennes join TF12 at 26,15 at 1800. Portland's speed is 27, but there is no memory space for her in TF12, so she continues SE alone in TF13. Pensacola's speed is now zero, a sitting duck. I abandon her in a new TF19, my last available number. If there are any future cripples, I will have to begin scuttling ships in order to avoid slowing the retreat of TF12.

At 1500 on June 5, the IJN has apparently expended all of its bombardment ammunition. The Midway airbase is operational again! Midway launches 36 SBD's with other assorted aircraft which claim four bomb hits on the IJN CV's at Midway. At 1600 the last IJN air strike of this replay claims two bomb hits on Hornet, but she shows only 6% damage. Hindsight reveals that the IJN now has no capability to launch aircraft.

After sunset on June 5, TF12 at 27,17 readies its TBD's and F4's for nighttime shuttle to Midway. The IJN is apparently unable to capture the island. I plan to continue the air battle from Midway on June 6, while my surface ships retreat SE.

At dawn on June 6 Midway launches many B17 search missions plus 33 SBD's. They claim three bomb hits on IJN CV's still resting at Midway. TF's 12, 13 and 17 exit the map to safety on the morning of June 6.

At 900 the IJN finally commences a slow retreat NW away from Midway. Later air strikes from Midway claim four more bomb hits, and the TBD's claim one torpedo hit. Figure 3 shows the position of all TF's at 1800 June 6. The game terminated automatically at 2100 June 6.

Continued on page 42

![Figure Two — 2000 June 4](image1)

![Figure Three — 1800 June 6](image2)
When you get there, you might as well sit down and wait awhile (there's a lot of waiting in this game, so get used to it). If it happens that Weasel doesn't show up, you made a mistake back in your room. Think about the various items you found there, and see if that gives you any ideas. Oh, and keep an eye on the time; that's important! If anything strange happens around 8:20, you probably forgot to do something when you woke up.

So, Weasel arrives, but now it looks like there's a chance in meeting places, and you'll have to trek off to another spot on the island. (of course, you ARE mapping this out, aren't you). The one thing to watch out for is McGinty; he can really louse things up for you if you aren't careful. I'll give you this bit of advice: remember that he can see everything you carry, except the money in your pocket.

Well, here you are at the new meeting place, and you'll have to wait some more until everyone shows up. At least, everyone gets there, and you finally find out which wreck you're diving for! Johnny will show you an item. Quick reference to the shipwreck book (the one that came with the game) should tell you which ship it's from. Saving the game from this point on will keep the wreck the same, and it's a good idea to save here, anyway. Just in case you make a mistake later.

However, you're not quite ready to dive yet! Johnny wants some proof that you're really in on this deal, and you'll have to go get it. And you'll have to meet him again in yet another spot. Which means (you guessed it!) more waiting. But, all things come to those who wait, and after meeting Johnny again, you finally go to the Outfitter's to do some shopping.

This is the time to look at the tide table/price list that comes with the game. There's quite a few things on it, but you won't need most of them. What you will buy depends on which ship you're diving for; but in any case, you'll have enough to get what you need. Read the list carefully, and do some thinking.

Now, it just so happens that McGinty will be there when you arrive. What you do while he's around is very important; doing the wrong thing can blow the game right there. Be patient, and choose your actions wisely.

All right! You've bought everything you'll need (or think you'll need), and you don't have to get to the boat right away. What to do? Hmmm... maybe you should take a stroll around the island, and visit a few places you haven't been to yet. Never know what you might see!

When you get to the boat, there will be some more waiting to do. The delivery boy has to come by with the supplies, and the rest of the crew has to arrive, as well. While you're waiting, you may as well poke around the boat and see what's there. There is also a certain item you may want to put somewhere for safekeeping, and this is a good time to find a place for it.

Once Johnny is on board, you can give him the coordinates of the ship, and then you'll be off. Take a nap, and by the time you wake up, you'll be at the dive site. Since there are two wrecks, one that requires scuba gear, and one that requires deep-sea gear, we'll look at them one at a time, scuba gear first (oh yes, if there's anything special you want Johnny to know, this is a good time for it).

Once you're all decked out in your scuba gear, and you're sure you have everything, dive in. Splash! Just keep swimming down, until you reach the wrecked ship. Along the way, you may find yourself bothered by a fishy nuisance, but the right item will take care of that.

Getting into the wreck is easy; just go into the hole. You might want to save the game here, and just look around the ship to see where everything is, and map it out. In one room, you'll find breathable air; remember where that is, it's important.

Sooner or later, you'll find a door with a sign on it. Take a good look at that sign, it says the room beyond is a... mine locker! Gulp! However, it's quite safe to open the door and go in. Just be very careful about what you touch in there, and how you touch it.

Look around in there, and everything seems to be ok, except for one mine that's loose, and floating in front of a hole in the ceiling (don't ask how that happened without the mine going off!). The trick is to get the mine away from the hole, without blowing yourself to tiny bits. If you remember what mines are made of, the solution should come to you sooner or later. It's an attractive one.

After that, it won't take you too long to find the safe, and remove the contents. Now comes the fun part. The case is starting to fill with water, and the contents will be ruined if the water level gets too high. What to do? Well, you better get that case out of the water, pronto! And then you have to get the water out of the case. Too bad that crack is so small; if it was a bit larger, you could probably pour the water out...

And that's pretty much it for this wreck; the other one is a bit more interesting! Also more dangerous, because you can't just swim around, you have to walk around in the diving suit, with an air hose trailing behind you. If anything happens to that hose, you won't be coming back up again.

As with the other wreck, you just keep going down till you reach bottom. When you reach the wreck, go through the hole as you did with the other one. Crash! Oops, looks like the ladder broke... and you can't just swim up. Well, maybe you'll find a way out later. For now, just go along through the ship.

Continued on page 43
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Q: I have heard that some people are now getting $10,000 a year in game royalties. Is this possible? Can you make a living designing games?
A: Certainly. I’ve been making a living (after a fashion) designing games for most of the last six years. I wouldn’t recommend it for someone with a weak heart or a large appetite, though. (Around here, 10K a year won’t pay the rent.) The hardest part for most would-be careerists is coming up with their second game.

Q: What kind of royalties should I expect from a game?
A: Expectations can be dangerous! I suspect the median royalty for all published games is around $1000, but that’s just a guess. Most games die in infancy. Those that survive may sell 5000 copies. Really successful games can sell tens of thousands of copies, and a few games are reputed to have exceeded the 100,000 mark. Multiply any of these figures by $2 or $3 apiece (half if you’re not designer and programmer) to calculate a ballpark royalty.

Don’t forget the time problem. Wizardry and Skyfox took years to develop, and any reasonable game takes at least six months. Even that pace is impossible to maintain; putting out a game every 9-12 months is pretty good. And it will be a good six months after the game is published before you see your first royalty check.

Q: What kind of software companies — and nearly all new ones — will be unable to get shelf space this Christmas. No shelf space means no sales — and no royalties. And Chapter 11 (bankruptcy) by spring. The Great Software Shakeout will get worse before it gets better.
A: Reread my last answer — and the 2nd paragraph of this column. If you are interested in working on utilities, development systems, and the latest hardware, go with an established company (if you can). On the other hand, I firmly believe that, with few exceptions, the best games are not created by employees. (Certainly, most good writers, screenwriters, composers, etc. are not employees of their publishers/studios). If you’re looking for “job security” (a concept I find laughable, find another industry; if not, I think game designers are better off self-employed.

Q: Why
A: All the usual reasons: Artistic freedom. No office politics. No artificial restrictions. You can set your own hours, stay up all night, go to work in your bathrobe (or your bathing suit).

Q: Sounded like heaven.
A: Or hell. If it’s not ideal, it’s impossible. If you can’t meet deadlines (yes deadlines), if you can’t push yourself to work long hours (not just 40 hours a week, either) day in and day out, you’ll starve. No product, no income. If your game doesn’t please a publisher — and thousands of gamers—you’ll go broke. Pronto.

Q: Could I deduct the cost of my computer from my taxes?
A: You bet your ASCII! As a professional game designer or programmer, you can deduct your computer, disk drives, printer, TV/monitor, desk, chair, and so forth. Actually, the normal procedure is to depreciate such things over five years (i.e., to write off a portion of the cost each year), which also allows you

Continued on page 42
If you took all the hours spent by all the people who've played Archon and put them together, there's a good chance it'd amount to more human effort than it took to put a man on the moon. What does this mean? Is it a good thing? And why, in light of this, did the people pictured here decide to issue a scorching sequel named Archon II: ADEPT?

For starters, we don't really know what it means. Except that a lot of people who had a pretty good time with Archon are about to get more of what they like. And people who've yet to experience the best-selling, award-winning, knuckle-whitening original have two good things coming their way.

Point two: If there's a moral issue here, we see it this way: A wise man once said, "I ain't never had too much fun." We agree. And we think that once you get your hands on Archon II: ADEPT, you'll see his point.

Now for the third question. Why a sequel? Well, there are sequels and there are sequels. The good ones happen because people just haven't had enough of a good thing. Obviously we're here to tell you that Archon II: ADEPT falls into the right category.

Where Archon took inspiration from chess, fantasy role-playing characters and arcade combat, ADEPT comes more from a world of its own making. Like Archon, it pits the forces of good against those of evil. But in place of the chessboard motif there is a map of elements—Earth, Air, Fire and Water. The role of magic is greater. The strategies are deeper. Things move faster. And the hidden algorithms that control the computer's play are considerably smarter.

Having already spent the better part of a month playing ADEPT (in order to write this ad, of course), we're quite confident it will seduce you too.

And if, by some strange chance, there is a parallel universe in which computer simulations come to life, we are confident that a large part of its population has Jon Freeman, Paul Reiche III and Anne Westfall to thank for their brief and miserable existence.

ARCHON™ & ADEPT™
from ELECTRONIC ARTS™
In 1981, SSI came out with Germany 1985, designed by Roger Keating. This game was billed as the first scenario of a new series called "When Superpowers Collide"; and subsequent games with the same system were promised. Sure enough, two more releases have come along RDF 1985 and Baltic 1985 and we are told to watch for the fourth, Norway 1985, in December. Since we are about to enter the fateful year in question, you might like to know what Roger foresees in these games.

The "1985" series of games all detail small elements of a hypothetical conflict between NATO and the Warsaw Pact in the immediate future. Each one is a tactical wargame which explores a potential battle which might occur. Although the Designer's Notes talk about NATO forces, the "Superpowers" mentioned in the banner are the United States and Russia (no allies). Germany 1985, the first game in the series, gives the opening battle of the war, as Russian troops move across the border into West Germany with the Americans defending. The next game, RDF 1985, switches to the Persian Gulf. Keating postulates a Russian force moving into seize the oilfields. The game centers on our "Rapid Deployment Force" (RDF), which must land and retake the area. Finally, Baltic 1985 supposes that the Russian drive in Southern Germany has been stalled, and that the Americans decide to launch a swift assault through Northern East Germany to relieve the bypassed and besieged garrison in Berlin:

Germany 1985 represented the state-of-the-art in computer wargames when it first came out; and despite the fact that the later games are basically "scenario variants", they are still leaders in player options, graphics, and speed of program execution. The complexity of the three games is fairly high, yet they can look deceptively easy. When you first sit down to play one, the many "automatic" functions and orders allow you to let the computer do much of the "work" for you during your turn. Also, the terse nature of the rules presentation encourages you to learn the system as you play, rather than sit down and study it first. In order to get better with each game, you really do need to understand what is going on behind the scenes, and a player who stays on "automatic" will ultimately be frustrated by his lack of understanding.

Each of the three games includes a game disk and a reference map of the battle area. Beyond the physical components, the three games share many common features. All three are fought on a 39-by-28 hexgrid with each unit representing a battalion. The time scale is the same (four hours per turn), but the distance scales vary (from one mile per hex in Germany 1985 to three miles per hex in Baltic 1984). Also, the same kinds of units are used in each game. For instance, the American forces include air cavalry units (helicopters) which the Russians don't have, while the Russians have mobile Katushka rocket batteries in addition to regular artillery. The graphics and maps in the games deserve special mention - they are very well done. The screen presents only about ten percent of the map at any time; the screen can be scrolled or jumped to various spots on the map in order to see all of your forces. The hi-res graphics differentiate nicely between the eight or nine different types of terrain in each game and the seven or eight different unit types possessed by each side.

- **THE GAME SYSTEM**

All three games use a game system which we might as well call the "1985" system. Each game is fifteen to twenty turns long with alternating player-turns. During your turn, you do not make all of your moves and then execute all combats. Instead, you move and fight with one unit until you are finished with it, and then go on to move and fight with another. Once you have selected a unit and are ready to do something with it, there are several more things to consider than just "where shall I move it?" The computer keeps you updated on the current strength and efficiency of the unit, the distance to the divisional headquarters unit, and also of its mode. A unit can be in any one of eight different modes: normal, attack, defensive, support, transport, fire (for artillery and ranged weapons), river (for crossing them), or reorganize. Each mode has specific strengths and weaknesses for attacking, defending, moving and acquiring replacements. One of the more subtle aspects of the system is learning how to use the right mode at the right time.

Once you have checked all the aspects of a unit, you need to decide what to do with it. Using a tank battalion as an example, you might move to and attack an enemy unit, or enter defensive mode, or call for friendly artillery support, or enter support mode in order to assist the combat of a nearby unit, or enter fire mode and execute long range fire (kind of a short range barrage by the tanks), or you might even give a "delayed attack" order which saves any unused movement points until your opponent's turn. Then, as your opponent moves his units, the computer might decide that your unit has spotted an enemy...
unit and automatically move it up and attack the triggering enemy unit in the middle of its movement. This example shows just some of the choices which you must make for each unit each turn.

The movement system reflects common sense. A unit in transport mode on a road can move very fast (it is also very vulnerable to enemy attack), a unit in normal mode is slower, and a unit in defensive mode can not move at all. One interesting feature of the movement system is the concept of “sighting enemy units” (SEU), which are those enemy units which are able to “see” your unit as it moves. The cost to enter a hex during movement is based on a value for the hex plus the number of SEU’s. In other words, the more enemy units that can see you, the more cautiously you must move. This concept certainly makes sense, but has almost never been implemented in wargames because of the bookkeeping involved. The computer can handle it, though, and constantly keeps you informed of the number of enemy units which can spot your unit as it moves.

The combat system is the heart of any wargame, and the “1985” system is an interesting “mixed bag” of pluses and minuses. Combat is initiated automatically whenever you move a unit adjacent to an enemy unit (you also have the option to initiate combat against an enemy unit if you start the turn adjacent to it). The combat is resolved with a combat differential system; an attack value of the attacking unit is compared to a defense value of the defending unit and the difference determines the losses to each unit. The attack and defense values are based on the strengths, efficiencies, and modes of the units, the presence of nearby units in support mode, the proximity of the divisional headquarters unit, the terrain in the defender’s hex, the number of other sighting units in the area, and preparatory artillery fire. In each combat, both the attacker and defender generally lose some strength and efficiency (in a very strong or weak attack, one or the other might be completely eliminated). Also, the defender might be forced to retreat several hexes (the computer determines all retreat paths for you).

The best thing about the combat system is that it takes into account the many external factors which do influence combat (such as nearby units in support mode). The worst thing about the combat system is the same thing; it uses much more than just the strengths of the two units involved. The combat system does give an accurate presentation of the factors involved in modern combat, but it will take a while for players to comprehend exactly how best to utilize their assets when attacking. The appendix in the main rulebook is absolutely required reading if you want to succeed in combat; it gives information on how much influence any one factor has in determining the outcome of an attack. Since the game system involves moves and attacks by individual units, you can not move three units adjacent to an enemy and then execute a “3:1” attack. You must decide whether to attack with each unit individually or to put two of the units into support mode and try to nail the enemy with one well-supported attack. There are always several ways to conduct an attack (or defense), and learning to optimize combat results is one of the major challenges of the system.

- **WEAK POINTS**

As long as we have mentioned the combat system, let me use it to illustrate the one major weakness of the “1985” games. Let us suppose that there is one enemy unit that you wish to attack, and you must choose one of these two options: 1) Attack with a full-strength tank unit (15 strength points), or 2) Attack with a slightly weakened tank unit (12 strength points remaining), but with another unit (a shattered remnant with only 1 strength point remaining) in support mode three hexes away from the tanks. It might surprise you to find that the second case does better, much better! The significant effect of friendly units in support

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A Visit to the Classified Ads

John Besnard

During the past year, a number of the major software magazines have introduced Classified Advertising sections. Once again, the opportunity emerged for the little guy to start his own software publishing company. For about $100 he could run a ten line ad and reach more than 50,000 potential customers. Well, they reached me! I bought them all. I decided in January that I would take a chance and buy every game advertised in the classifieds that cost under $20.00. I'd like to share my experiences in purchasing five of these games.

All of these games have the following characteristics in common:
1. They run on the Apple II computer series (48K w/ disk).
2. They cost under $20.00 each.
3. At best, they come packaged in zip-lock bags.
4. You've probably never heard of them before and you certainly can't test them before you buy them.

In general, the games all came without any major bugs or glitches. They all booted up the first time I tried. Some of the games started with a title page and demo. Most, however, simply asked if the player wanted to play or to read instructions first. Well, let's get on with it and see what you can get for $20.00.

• TRIVIA PYRAMID by Mark Whitehurst, 2538 Westbrook Drive, Franklin Park, IL 60131. — This game begins with a brief tune, followed by an even briefer menu. You can either choose to play or to create your own games. The game exploits the current trivia craze and contains over 1000 questions on a double sided disk. The basic play mechanic has you answer a trivia question from one of eight categories (history, languages, science, literature, TV & movies, geography, sports and miscellaneous). You can also choose to exclude specified categories before each game.

It takes twelve advances to reach the top of the pyramid. For each correct answer, the play may advance once or choose to risk his advance by trying a bonus question from the category of his choice. If you answer the bonus question correctly, you make two advances. Miss it, and stay where you started. Two to four players may participate in each game, with one player's spot optionally taken by the computer, so that a sort of solitaire is possible. The game is cute and the questions all appear to be original. Spelling is, unfortunately, very important. I missed "HOMERUN" as an answer because I entered "HOME RUN" with a space. It seems that the author just forgot to include it, because for each question you enter in the game creation mode, you may include as many answers as you can fit in 38 characters (separated by exclamation points). If you ever wanted to make your own trivia game, this one's for you.

• CARCADE by Steve Walloch, 9733 52nd Street W, #252, Tacoma, WA 98467. — Carcade is the result of a lot of very good programming. It consists of no less than eleven different arcade style games. Each of them is loosely tied together by a "car" at the bottom of the screen where the player affects his control over the various tasks. The disk boots and simply asks if you want instructions or want to go right into the games. Unless you care about the strange way the game is scored, just go for it. I always have fun trying to guess the rules of a game by playing it without looking at the directions. A few of these games really put by creativity to the test.

Although the games are unnamed, I chose to call them names, a few of which are unprintable. My favorite was The Spinning Bat where you shoot a ball into a pair of parallel lines (the bat), causing it to rotate as if the ball added weight to it. The closer to the end, the more the weight affects the structure. You have to use this bat to hit a bouncing ball through a moving opening. Yes, it's as tough as it sounds. The game allows from one to four players and keeps high scores on the disk. As I mentioned, the scoring is, well... let's call it "different" for want of a better definition. Points are only scored in the eleventh game, Bombs, in which you shoot at bombs with burning fuses while trying to avoid contact with them. The points scored for each bomb are based upon the scores you made playing the first ten games. The animation is very smooth. The graphics are very sharp, and if you're looking for a bargain, eleven games for $15.00 is hard to pass up.

• MINI GRAPHIC GAMES by Alan Foxx, 28090 Tavistock, Southfield, MI 48034. — This disk is probably the most professionally presented of the bunch, with good music and very well done title and menu pages. It comes on a two sided disk. (There's an ad on the back
for other Fox products). The games themselves aren't, however, all that spectacular. Three of the four games are arcade type games, but use only the lo-res capabilities of the Apple. That fact, in and of itself, wouldn't be so bad were it not that the response to the joystick is so awkward. The games all involve moving a yellow spot to capture green spots, while avoiding dark blue spots.

The fourth game on the disk is fortunately good enough to make me glad I spent the overly grand sum of $4.95. This game is called Word Guess and vaguely resembles Mastermind. Guessing a three letter word is the task. The computer informs you if the word you guessed is alphabetically higher or lower than the selected word, and how many of the letters you chose are correct. The addiction of the game is in trying to come up with a strategy to guess any selected word in as few guesses as possible.

- X*Bert by Dave Harper, 1088 Browning Avenue South, Salem, OR 97302.

Guess what this game is like! Sure is. It loads with a title page and goes into a demo mode on the first keypress. The game has absolutely no options. Just press another key to begin. Control little X*Bert around the pyramid of cubes and avoid the bouncing balls. The "A", "Z", "O" and "F" keys are the only ones you need. Although very similar to the coin-op, there are a few differences that were either programming considerations or an attempt to make it "copyright-wise" different. The balls that bounce down the screen are always white, those that move left to right are blue and those that go right to left are red. The character that passes for 'Golly' looks a bit like a soft boiled egg with shades, sitting in an egg cup. "Like cool, man, really cool." My only substantive complaint is in the starting position of the balls. They begin right on top of the board without warning. And Coily doesn't hatch, he just appears at the bottom of the screen and then comes after you.

- THE RUINS OF KELEDOOR by Mark Whitehurst, 2538 Westbrook Drive, Franklin Park, IL 60131. — A member of the fantasy playing game genre, The Ruins of Keledoor is similar to an adventure game, but with hit points. The opening sequence is animated and depicts your approach to the underground city of Keledoor. The objective is to find and recover five treasures while dispatching various inhabitants of the ruins. It has hi-res pictures of each room and accepts a fair amount of the two word commands like a number of other adventure games. Vocabulary, however, isn't its strong point. It differs from other adventure games by always showing the room from the player's point of view. The actual direction you are facing is shown at the bottom of the screen. It also makes nice use of sound. For example, the doors squeak on their hinges when you open or close them.

I've played a number of games of this type before, but this one, for some reason, was the first that had me questioning the "realities" of Fantasy Role Playing games. You see, now I'm not at all sure what there is in these ruins to keep so many monsters alive. They must feed on the anticipations of scrumming new adventurers. You can anticipate getting zapped many times as you wander these halls. The final difference between TROK and most other adventure games is a true boon to the poor typist. Game play is divided into commands or moves. Pressing the "ESC" key switches between these two modes. In the move mode, moves are made by pressing only a single key.

Just like any other adventure game, save and restore functions are mandatory and are provided. Unlike other dungeon games, TROK comes with hints and a complete map of level one is supplied. Very civilized for $14.95!

Although none of the games I've reviewed here are likely to be published by one of the major software houses and probably will never make the top ten, I enjoyed getting and playing each of them. Especially as it made me feel like the good old days of computer games were back. I can't really believe that those "good old days" were only two years ago. Long live the rugged individuals who make and sell their own products! Care to join me in the under $30 search through the classifieds in 1985?

John Besnard's designs include PENSATE and ARCADE BOOT CAMP from Penguin Software.

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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. Payments for tips and strategies used in CGW will be two issues of CGW. Please specify if you are already a subscriber when sending your tips.

• BATTLE FOR NORMANDY
   Since playing two different computer versions of SSI’s Battle for Normandy, I noted an interesting computer German strategy in solitaire play. It will very often pull the German infantry division off Omaha Beach and leave the road to St. Lo wide open. This only seems to happen when I land just a U.S. cavalry unit to oppose it.
   But you only have June 6 and June 8 turns to take advantage of this since heavy German reinforcements arrive on June 10. You can get into St. Lo in the two turns, but remember to advance supply units or holding the town may pose a more difficult task.
   Larry Brown, Atwater, OH

• M.U.L.E.
   Here are some tips for M.U.L.E.:
   1) In tournament play, go for the Crystite. Food, energy, and Smithore may appear to have equal or greater pay-off in the early rounds, but none provide the return on investment that Crystite provides.
   2) Don’t sell energy to your opponent. Get up for a drink of water or say you forgot. Without energy, their production shrinks to little or nothing!
   3) If you get good position early on in the game, keep the price of land high so that your opponents will not be able to buy choice plots that may be randomly selected by the computer. To do this, push the Mechtron (when it is willing to bid) as high as it will go.
   4) Do not select the Packer as a character. The Packer on the main screen has a hole in the center that sometimes makes catching the Wumpus difficult.
   Dave Stone, Santa Ana, CA

• STAR LEAGUE BASEBALL
   When playing against the computer, take advantage of its conservative fielding habits. Learning to steal second base is a must as the computer is excellent at turning the double play on ground balls. Take your runner exactly two steps off first base. If the pitcher tosses over, you still have sufficient time to easily return to the bag. If trapped off the bag, run toward second until the first baseman throws to second. Then stop! The shortstop will not attempt to run down your man, thus allowing you to safely return to first.
   After a few throws to first, the pitcher will make the pitch. You must run as soon as the ball is released, but with the proper jump, you will always be safe at second unless against “Heat” with his fast ball. If you are not sure about making second, hold up. The catcher always throws to second and again the fielder there will merely hold the ball until you retreat to first.
   Try to “run with the pitch”. I will often take a fast ball strike, especially when ahead of the count, waiting for a slow curve of change-up. This slow pitch takes longer to reach the plate, thus allowing my lead runner another step toward his next base. This is most effective with a runner on second who then has a better chance of scoring on a single.
   If you need base runners (as you are behind several runs) try this trick. With a man on second, bunt a high strike pitch, which will roll down the third base line. The pitcher will throw to third even though there is no force play on. By holding up your lead runner, you
end up with a fielder’s choice and two men on, although now in a force situation.

Usually, aggressive base running is best. However, if you have a runner about to easily cross the plate after a hit, try holding him up intentionally a few steps from home. This will draw the computer’s throw to the plate, letting your next lead runner occasionally advance an extra base on the play.

Rik Fontana, Lombard, IL

**NORTH ATLANTIC CONVOY RAIDER**

Do not be fooled by going after the convoys. Stick to the task of taking on all the British Ships of the Line. After they have been destroyed, then (if you have time) go after the convoys as there will be many of them from which to choose.

Since you are now committed to taking on the British Ships of the Line, stay in the upper half of the screen, and near your Norwegian bases for refueling. Let the British come to you. When they do come near, use the fog banks and haze from which to attack. Pay close attention to the conditions of the day and night. After you steam out to attack from the fog banks, retreat, then turn again to the attack. Remember that the Bismarck’s gunners were the best of the German Navy, so use them to the fullest.

In using this tactic, I have been successful 95% of the time with a kill ratio of 200 + points to the British’s 50 points. I was able to sink all four of the British ships easily; the Victorious was hard to catch, but it also fell to my gunners. I have used the above strategy with six ships and have been successful 75% of the time.

G. Dwight Barber, Ashland, OR

**EASTERN FRONT—WINTER**

In Chris Crawford’s EASTERN FRONT, the Germans must boldly advance deep into Russian territory early in the game. Their success must be rapid and dramatic during the summer.

But, once the weather turns, negates mobility, and units become depleted, the advance stops.

If they had a successful summer, the Germans will be besieging Leningrad, approaching Moscow, and entrenching along the Donets. They will be facing the remaining Soviet armies at something close to parity. The Soviet armies will be much stronger individually than were the units the Germans overran earlier. That, combines with restricted mobility, will force the Germans to abandon their reckless tactics.

During MUD, the Germans should concentrate on positioning their forces for a winter offensive. And, when the snows finally come, the Germans can begin their offensive in earnest. The snows will make any large encirclements more difficult and the stronger Russian units will exact a heavy toll from the German attackers.

But, as the overall number of surviving Soviet units should be manageable, the Germans can afford to become more systematic in their advance. German units should surround individual units and small groups but not attack immediately. The unsupplied Russians should be allowed to winter for a turn before the actual battle takes place. This tactic makes ever the most powerful Russian groups easy to eliminate.

R. F. Thuriot, Racine, WI

**QUESTRON**

Ask questions first, fight later. Chests hold the keys to... success. Music soothes the savage fog. Match your weapon to the monster. If one weapon does not work, try another. If you find a hole that has no rope, use a rope of your own. Feeling closed in? Running into closed doors? Have a refreshing drink. Flattery will get you nowhere, but thievery will get you everywhere. Anyone who accepts your gold will have something.

Mike Kawahara, SSI

**TIPS FOR COSMIC BALANCE**

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PANZER-JAGD REVIEWED
by Jeff Seiken

BASIC INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Panzer-Jagd</th>
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<tbody>
<tr>
<td>Type</td>
<td>Wargame</td>
</tr>
<tr>
<td>System</td>
<td>Atari, C-64</td>
</tr>
<tr>
<td>#Players</td>
<td>One</td>
</tr>
<tr>
<td>Price</td>
<td>$25 cassette, $30 disk</td>
</tr>
<tr>
<td>Author</td>
<td>Richard W. Scorupski</td>
</tr>
<tr>
<td>Publisher</td>
<td>Avalon Hill, Baltimore, MD</td>
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</table>

The Eastern Front. For aficionados, no need exists to qualify the phrase with reference to a particular war or time frame. It can refer only to one topic, the titanic clash of the Russian and German military machines between the years 1941-1945. For sheer significance, the Eastern European Theatre of WW II ranks as one of the most important campaigns of modern times; for sheer drama, few subjects present richer possibilities.

- Panzer-Jagd (PJ), one of Avalon Hill's latest offerings in its line of Microcomputer Games, is set in the middle year of the war, 1943. Billed as a game of tactical combat, PJ enlists the player as the German commander, with the computer serving as the Russian leader. Playing time varies between one to four hours, and the Atari version also contains a simplified variation which can be played to conclusion in about half an hour. On a complexity scale of 1 to 10 (10 being the highest), Avalon Hill rates PJ as a 4. While also available on the Atari, this review is based on the C-64 version of PJ.

The basic situation is abstract. The player has at his disposal 12 platoons of Panther (Pzkvw) tanks, four Panzer III platoons, and nine infantry platoons, plus some artillery support. The inclusion of the diminutive Panzer III alongside the Panther, the pride of German tank design, seems like an odd combination; even the historical notes in the rulebook admit that by 1943 the Panzer III was obsolete and that production had ceased the previous year. Perhaps the designer wished to include a light vehicle that would be used more for reconnaissance purposes than for combat, as well as to add some variety to the German attack force. Matched against this assortment are four T-34/85 platoons, three 45mm anti-tank batteries, and three infantry platoons. The two combatants maneuver and fight across a randomly generated, rectangular map with an unseen square grid. The battlefield includes woods (approximately 33), heavy woods, open ground, a town, and a self-contained stream of rather humorous dimensions which simply begins, runs straight for five squares, and then just as abruptly terminates. The German commander's objective is simple: he must clear the map of enemy units within 19, 22, or 25 turns, depending on the difficulty level selected. This can be accomplished through either the elimination of all of the Russians or the capture of the town, in which case the remaining Russians will conduct a fighting withdrawal off-screen. Once the player captures a map sector, the computer will generate a new map and a new complement of Russian units (bolstered by any that successfully retreated off of the previous screen) to contest the German advance. Against this fresh commitment of enemy troops, the German commander receives only those units which survived the previous battle, without reinforcement. At the top of the screen, the computer displays a running total of the player's score at the end of each turn, based on the number of sectors cleared, friendly and enemy units eliminated, and turns elapsed. Total victory remains an ever elusive goal for the German commander, as the computer will endlessly create new maps and enemies until the German platoons are ground into the dust; in other words, play continues until the player no longer has any units remaining. Thus, the enjoyment of PJ requires the adoption of sort of an arcade mentality, for the challenge lies in attaining a high score and then attempting to better it during repeated playings.

Units are rated for strength, range and movement. Strength can be whittled down through combat and when reduced to zero, the unit is eliminated. German tank platoons also possess a fuel allowance: a platoon expends varying amounts of fuel per turn depending on the distance moved and the terrain type entered. After clearing a map sector, however, each platoon receives a fresh allotment of fuel.

Much of the challenge of Panzer-Jagd stems from Russian hidden unit capability

Tactically, much of the challenge of PJ stems from the Russian hidden unit capability. The computer initially deploys all Russian in hidden status. The Russians do not appear on the map screen until they enter open terrain or become spotted. A unit is spotted when it fires or an enemy unit moves adjacent to its location. German units also have spotted/unsptotted status, which means that the computer will plot the Russian moves as if it did not see the unsptotted German platoons.
PJ is a colorful game, but one must get accustomed to the unit symbolization. A rotund armor silhouette represents the German tank platoons, with the Panthers and Panzer III's differentiated by the length of a gun barrel. Additionally, units are color-coded according to status, but the light shading of Russian infantry platoons in the open and of unspotted German infantry platoons sometimes makes it difficult to distinguish between the two. Problems of this type, however, disappear after one or two playings. On the positive side, PJ does contain some clever audio visual effects. When a tank or anti-tank gun fires, a loud report sounds and a tiny projectile flies from the firing unit to the target, landing with a flashing explosion and little cloud of smoke. Infantry fire follows the same sequence, except that the chatter of small arms replaces the first report. Although all of this has no real bearing on the game, it does contribute a nice bit of flavor to the game.

With the Russians initially outnumbered 2:5:1, the player's first impulse is to send the German tanks forward in a wave, simply overwhelming everything in their path. While this approach will carry the Germans through the first sector, the heavy casualties likely to be incurred will be sufficient to leave the player with a greatly depleted attack force for which to clear the subsequent sectors. Ambushes are particularly deadly, due to the sequence of play. For example, during the Fire Execution Phase, a previously hidden Russian tank platoon opens fire on an exposed platoon of Panthers. Since the Panther's movement has already been plotted, the ambush platoon in the ensuing Movement Execution Phase will continue along its previously determined path, often directly towards the woods that shield the Russian tank unit. Although the Panthers can return fire the next turn, the Russian tank will still usually get the first shot, which means that the German unit will be hit twice before getting the opportunity to respond (assuming it survives). Similarly, although the platoon can in fact attempt to move out of harm's way, the Russian will still get in that second shot as all combat is resolved before movement. A much better, more economical strategy involves a slow, deliberate advance. Try to ensure that no unit ends its move in open ground; furthermore, keep platoons within supporting distance of each other so that if one gets fired upon, one or two others will be in position to return fire. When friendly forces must cross an expanse of open terrain, use your artillery to canvas the woods that border the open area. Be careful, though, that you do not send your units blindly into the path of your own artillery rounds (the old “friendly fire” syndrome—it can happen). And, while each elapsed turn results in the subtraction of a point from your score, the lower casualties and the correspondingly greater ability of your surviving units to capture additional sectors will more than offset these point losses. The hide-and-seek nature of combat helps to maintain player interest, but even this aspect of PJ cannot prevent play from becoming stereotyped before long. The map screens lack variety and tactics quickly degenerate into a matter of waiting for a Russian platoon to reveal itself and then hitting the exposed unit with everything in range. As a token gesture towards unit differentiation, the effects of armor fire against infantry and artillery fire against armor are reduced, but this is not enough. Anti-tank and infantry platoons behave much like tank platoons except for the slower movement rates and reduced ranges. Combined arms is a term that will never enter the vocabulary of a PJ player. Moreover, since PJ's basic premise requires the player to continue attacking till the point of total elimination, even the most well-fought of games always end on a Pyrrhic note. Variety could easily have been introduced through the inclusion of more distinctive terrain features, such as a stream of realistic proportions that winds its way across part of the screen with bridges at one or two locations. Greater variations in the amount of forested terrain per sector would further help to create a little uniqueness in the map screens. Specific unit capabilities, such as armor overrun attacks against units in the open can be added, too. This would all not be asking too much of a product that sells for $30.00 (disk), even one of moderate complexity. As the game stands now, Panzer-Jagd simulates tactical combat about as well as Electronic Battleship portrays naval warfare. Gamers interested in tactical warfare would be better advised to spend an additional $10 or AH's TAC for SSI's Combat Leader.
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THE
COMMODORE
KEY

ADVENTURE GAMES

Roy Wagner

While Roy's column is directed to C-64 owners, this particular installment will also be of interest to all adventure gamers regardless of your machine.

“...You are standing at the end of a road before a small brick building. Around you is a forest. A small stream flows out of the building down a valley...” — COLOSSAL CAVE

“...You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here...” — HOUSE OF BANSHI

• THE PAST

And so begins two of the best known computer adventure games. These games were originally coded and played on large university computers. They were created by college students “playing” with their campus computers, using the latest state-of-art coding. From such “play” came a whole new genre of computer games.

For those readers who don’t know what an adventure game is, I will offer a brief explanation, and thereby limit my discussion. Adventure games had their origins in DUNGEON AND DRAGONS and similar role-playing games. These were lead by a “master” who created the world that others explored through trial and error “movements” of characters. These adventures gave the players the opportunity to explore the world of “make believe”, to encounter imaginative creatures of all kinds and resolve challenging situations.

For the players of these games a vicarious adventure could be experienced and challenging problems could be solved by groups of players. To be good, these adventures required a good master directing the adventure. Expanding on this idea, Don Wood and Will Crowthers created an adventure world and put it into a computer program. In the program, two word commands from the player, such as “GO NORTH”, “GET SWORD”, and “CLIMB TREE”, were used to interact with the situation. These word combinations were made up of verb and noun. The program contained a limited vocabulary. With each word combination entered, you received a descriptive response. If the program did not understand your entry, you were told so.

This program was named the COLOSSAL CAVE, but as it circulated from one college campus and industrial computer to another, it came to be known as ADVENTURE. About this time one campus was working with a computerized language parser. (A parser breaks a sentence into its parts, and with these parts interpret meaning.) The students used this parser to create their own adventure, expanding on many of the original ideas from COLOSSAL CAVE. This program, with its sentence parser, was known as the HOUSE OF BANSHI on Compuserve. It was originally named from a nonsensical word used at the MIT Lab for Computer Science. This all-purpose interjection was “Zork”.

A young programming analyst who was quite enthralled with the ADVENTURE program wanted to translate this concept to his microcomputer (a TRS-80 with 16K). Scott Adams succeeded in doing so and has, to date, programmed and marketed 14 adventures for the TRS-80, Apple, and Commodore 64. He has also programmed graphic and graphic/sound versions of these games. His adventures still use the original verb-noun parser.

• THE PRESENT

I do not know what ever became of Woods and Crowthers, but their adventure game lives on. A somewhat abridged version is available for Commodore computers from most large User Groups or mail order services that distribute public domain software. This original ADVENTURE game was converted to our machine by Jim Butterfield, a recognized Commodore expert/guru.

Many commercial adventures have been marketed using the two-word convention. Most have not stood the test of time. They were found awkward to communicate with due to a limited vocabulary (you kept guessing words hoping to find the correct combination of verb and noun used by the programmers). Many required you to find a way out of complex puzzles, situations, and circumstances. Without hints, these became a quick lesson in frustration and futility. An exception to these frustrating adventures are those by Scott Adams from ADVENTURES INTERNATIONAL. There are 14 available all programmed by Scott for several different machines.

Marc Blank and Tim Anderson went on from their friendship at MIT in 1977 to become the founders of INFOCOM. Their first release was a three part microcomputer version of ZORK, their first adventure. The original required nearly a megabyte (1 million bytes) of memory on the mainframe computer. The three part micro version has about twice the material and uses only about one quarter of a megabyte.

INFOCOM has set the highest standard for “text only adventures” or “interactive fiction” as it has come to be called. In these, you are able to use complete and compound sentences to communicate your movements and actions. These adventures encompass several areas of interest: pure adventure (Zork series), wizar dry/fantasy (ENCHANTER and SORCERER, also known as Zork IV and V), science fiction (PLANETFALL, SUSPENDED, STAR CROSS), mystery (DEADLINE and WITNESS) and sea tales (SEASTALKER for beginners or those 9 years and up, and CUTTHROAT for experienced adventurers). They are challenging and backed with pleasant humor. The documentation for each game is sensational and very thorough. Hint books are available for an extra cost and I highly recommend them. The hint books relieve nagging frustrations and offer helpful clues. They suggest things to try that are not necessary for completion, but add more fun to the game.

The INFOCOM parser is the best currently available and continues to improve. The vocabulary for their adventures is now over 1000 words per game. As a result, there is less difficulty in communication, as the games recognize synonyms.

Another type of adventure that is common is one that uses graphics along with text interaction. Some simply use graphics to illustrate the scene, while other use graphics to provide clues not expressed in the text, or provide animation to add excitement. Most “real adventurers” feel that graphics take away from what the imagination creates without them.

Graphics, however, use large amounts of disk and internal memory. Disk accesses are frequent and these take time away from actual game play. This is a time when a picture is not worth the words it takes to describe the scene. What you see is often NOT what you can GET or to which you can GO. Make sure any graphic adventure you buy has the option to turn off the graphic displays, as after the first few times, the pictures are not worth the wait. In my limited exposure to these, my favorite one is Datsoft’s DALLAS (based on the TV series). It is all for fun, with great sound, graphics, and animation.

• WHAT’S NEW

Scott Adams has written a new parser called SAGA (Scott Adams Graphic Adventures) which is being used to improve all of his previous adventures and has been used to produce a new Questprobe series. This latter series will give us specific adventures using

Continued on page 43
One of the best selling series of sci-fi short story anthologies is Fred Saberhagen's Berserker series. In the first book of the series there are two stories, in particular, that seemed like potentially good Galactic Gladiators (GG) scenarios. The first one was "Stone Place," which involved an assault on one of the "Berserker" vessels. The attack plan called for ramming the "Berserker" ship with an assault ship and invading the enemy ship with the intent of reaching and destroying the central "brain" of the robot vessel and destroying the artificial intelligence. When the plan was first attempted (at "Stone Place"), it was successful in spite of the fact that the soldiers of Esteel and Venus were opposed by numerous robots within the maze of the "Berserker" vessel.

Johann Karlsen, brother to the charismatic dictator (Nogara), was in high command of the assault fleet and the Venerian Admiral Kemal was the second-in-command. Karlsen's paramour, Christina de Dulcin, was a prisoner of war during the battle, so she is included in the scenario as Chris, an unarmed civilian to get in the assault team's way. In the story, the soldiers used laser rifles to fight off the robots but, as this is not possible in GG (since phaser rifles cannot damage robots in GG), the teams in both scenarios will be limited to gapers and gemstones. In the "Stone Place" scenario, the objective of the Berserker team is to protect the artificial intelligence (the cursor position). The cursor should be placed within the room on the right side of the screen which has two entrances and a partial block in the upper left hand corner of the chamber. The object of the assault team is, of course, to reach and maintain control of the cursor position.

Below are the rosters for the two teams.

**BERSERKER TEAM**

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<thead>
<tr>
<th></th>
<th>St</th>
<th>Dx</th>
<th>En</th>
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<tbody>
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<td>27</td>
<td>9</td>
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<td>BETA</td>
<td>26</td>
<td>11</td>
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</tr>
<tr>
<td>GAMMA</td>
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<td>9</td>
<td>27</td>
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**ASSAULT TEAM**

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<th></th>
<th>St</th>
<th>Dx</th>
<th>En</th>
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<tbody>
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<td>BROOM</td>
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<td>12</td>
<td>7</td>
</tr>
<tr>
<td>CHRIS</td>
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<td>12</td>
<td>6</td>
</tr>
<tr>
<td>HEMPHILL</td>
<td>14</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>JOHANN</td>
<td>14</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>KEMAL</td>
<td>17</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>MITCH</td>
<td>14</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>SALVADOR</td>
<td>15</td>
<td>10</td>
<td>6</td>
</tr>
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</table>

While the scenario may seem to be onesided in favor of the "assault" team at first glance, this is not true. Even if the "assault" player is playing against the computer and is continually being reminded that the robot team is "Trying to get out of this one alive," he/she should remember that the phasers belonging to the robots have an unlimited supply of ammunition, while the gemstones of the humans and Wodanites have to have maximum effect in order for the "assault" team to win. The scenario is at its most interesting level when both teams are operated by human opponents, and the solitary player should be warned that he/she is in for a long night if the computer runs the "assault" team. This is due to the fact that computer doesn't seem to know when it's wise to retreat and unarm a soldier who has expended all of his ammunition. Game play is slowed considerably when the computer directs the larger team in either of these scenarios.

The second scenario is derived from the story, "THE MASQUE OF THE RED SHIFT." In this story, Janda is a prisoner of war taken by the "BERSERKER" ship and subsequently transformed into an assassin machine. The primary objective of the machine Janda is to affirm and guarantee the death of Johann Karlsen, the war hero and bane of the robots. The battlefield is the great hall of Karlsen's brother, Nogara, the dictator of Esteel and its empire. Nogara has turned his brother's wake into a sort of state dinner. Nogara and Governor Mical of Flamland, Jamy (Nogara's official torturer and interrogator), and two guards (named Ander and Berly for the sake of the scenario) are the only ones armed. Normally, one would expect the luminaries to be armed with ceremonial swords alone, but in the interest of balance of play (for the same reasons cited above) they are given gemstones. The sole exception is Lucinda, the sister of the REAL Janda. In the story,
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The characters also have histories and personalities, allowing the player the true joy of role-playing with them. Although the same sprite is used to represent both Achilles and Odysseus, the two heroes behave in entirely different manners. I tend to get emotionally attached to the wily Ithakan, and try to save him, but I use Achilles as a superhero and just throw him into combat anywhere at any time.

Finally, the game teaches Greek mythology. Before you are finished you participate in the Founding of Thebes, the Sack of Troy, and explore the Labyrinth of Crete. You visit the Temple of Apollo at Delphi and climb the slopes of Olympus. You earn either the favor or disfavor of various gods. You have to solve the riddle of the Sphinx.

I'd like to say this was a perfect game, but the best I can say is that it's very good. There are some weaknesses in it that slightly spoil it for me. For the most part they seem to be failures of imagination or minor errors in the research of the game designer.

1. When you're dealing with gods, monsters, dragons, lions, boars, hydras, and the like, you don't need to use mice, rats, blobs, and boulders as part of your monster menagerie. Theseus didn't have to kill rats to make his way through the Labyrinth of the Minotaur, nor did he have to dispose of any blobs. For the same amount of programming effort, Smith, could have included wolves and chimerae as additional monsters; both of which would be truer to Greek mythology and to the game's theme of heroism.

2. There are a few errors in the text that are totally unnecessary. Achilles gained his invulnerability from being dipped in the Styx, not by being burned and then being restored with ambrosia. If you're going to tell the myth, tell it right. Aeneas escaped from Troy so that his descendants could found the city of Rome, not Troy as is said in the text.

3. While Greek mythology is used as the basis of the game, it is often portrayed inaccurately, and with scant attention to the importance of women in it. Helen of Troy and Penelope of Ithaka are no better than puppets waiting to be rescued. Major figures like Medea and Ariadne don't appear at all. (Actually, Medea is in the game. You can talk to her in Colchis, but she has no active role.) There are plenty of other misconceptions and inaccuracies. Play it as a game, but don't think that it substitutes for actually reading the myths themselves.

A few other things should be mentioned. Error-handling is superb. I couldn't make an error with this game, except in judgement. Documentation is excellent. Thirty-one pages thoroughly explain the game and the unusual names that you will see throughout. ROH will give you months of playing pleasure, as you can play the game again and again.

Ken St. Andre

After Pearl

Type: Wargame
System: Atari
#Players: 1 or 2
Price: $19.95
Author: George Schwenk
Publisher: SUPERware

How often can you find a 48K wargame written in 100% machine-language for only $20? After Pearl's price alone may, for some, justify its purchase. However, before you grab your checkbook, read on; you may find that AFTER PEARL (AP) is not your cup of tea.

AP is a World War II strategic-level simulation of naval war in the Pacific following the Japanese attack on Pearl Harbor. It is joystick-controlled and played on a large, scrolling map of the Pacific which includes the major island bases from Hawaii to Indonesia. Ships of the opposing navies are represented by Red (Japanese) and Blue (US) flags and the occupation of island bases is represented by Red or Blue anchors.

Three scenarios are included, but two of them (Midway and Yamato) are introductory only and do not offer much play-value. The third, WW II, is a 40-turn campaign in which the objective is to accumulate 100 or more points than the opponent by the end of the game. This is accomplished by capturing and holding island bases.

When faced with overwhelming Japanese numerical superiority in the beginning, this may seem like a truly hopeless task for the US player. If however, he can evade a major engagement with the enemy long enough, reinforcements will begin to arrive and, if properly deployed, will turn the tide of war. Whether that happens soon enough is the hinge upon which the future of the Pacific swings.

AP is strictly an air/naval confrontation. There are 113 ships in the game, representing the major US and Japanese aircraft carriers, battleships and cruisers of the war. Among these, the most important are the carriers. They are essential. Without the aircraft that the carriers transport you cannot capture island bases and, without capturing island bases, you cannot gain enough points to win the war. Since the imperative here is to capture and hold as many bases as possible for as long as possible, the capriciousness with which the computer decides
to allot carriers to you (the US player) can be the determining factor in the game. The Japanese build up such a huge lead in the beginning of the game, that if the US player hesitates too long (or receives too many battleships, instead of carriers, or has his planes waste themselves in attacking inappropriate targets) it may be nearly impossible for him too overcome that lead by the end of the game (even though by that time he may control nearly every base on the map except Japan itself, and may have destroyed the entire Japanese navy).

It is here that some gamers may find AP to be maddeningly restrictive. The computer makes all choices of reinforcement schedules and nearly all choices pertaining to target selection and the number of planes to commit to a particular action (even whether or not to attack). Virtually the only choices left for the player are what ships to bring together, when, and where.

For those gamers who like greater control over the actions of their pieces, AP will certainly prove to be too inflexible and with too few factors (such as weather, fuel, damage, troops, supplies, etc.) influencing the outcome of engagements. However, for those who are not dyed-in-the-wool wargamers, and who simply enjoy strategic planning and maneuvering without a lot of detail, this game may prove to be a mental exercise in generalship, as it may prove too inflexible and with too few factors (such as weather, fuel, damage, troops, supplies, etc.) influencing the outcome of engagements.

The decision on whether to break radio silence or not when a floatplane is lost adds a real adventure. The determination by the Allies and the excellent use of weather, time and visibility makes each game a real adventure. The decision on whether to break radio silence or not when a floatplane is lost adds an exciting dimension to the game. After playing the game several times, it appears that it is better to lose a few floatplanes than to break silence early in the game. The game is also very satisfying to those of us who enjoy playing naval miniatures. The damage displays are familiar to the miniatures buff and provide a comfortable feeling when one first encounters the game. Further, the rule book contains some of the finest documentation available for creating one's own scenarios using the battle program. The rules themselves are clear and concise and contain no ambiguities.

Since the game bears so much resemblance to naval miniatures, the strategies are similar. When there are capital ships on the tactical display, it is usually better to use the Bismarck to make them their primary target. Since the Prinz Eugen has a poor chance of penetrating a capital ship armor, it is usually better for her to make a lighter ship her target. Further, I recommend that both the Prinz Eugen and the Bismarck use their secondary guns only on destroyers and convoys. There are two reasons.

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<tr>
<th>Name</th>
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<tr>
<td>Type</td>
<td>Wargame</td>
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<tr>
<td>System</td>
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<td># Players</td>
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<td>Price</td>
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<td>Publisher</td>
<td>Avalon Hill Game Co.</td>
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Bob DeWitt

"Signal the Prinz Eugen to change course to 180," ordered Admiral Gunther Lutjens. "If she can sink the cruiser, we'll take on the King George V. Tod fur der verdammt Englander." ("Death for the bloody English!")

Dreadnoughts provides an excellent opportunity for the player to attempt to perform better than the historical commander of the Bismarck. Like its companion game, Under Southern Skies, the solitaire version of the game has a strategic display which portrays the historical situation. The player attempts to elude the famous "Swordfish Squadron" and disrupt as much of the Allied shipping as possible. Once the player's ships encounter any Allied ship, the battle program is loaded so that the tactical battle may be fought. Unlike Under Southern Skies, there are no graphics for the tactical display, and the two player game is entirely limited to the tactical display. The strategic display is a map of the North Atlantic with terrain features that picture the Norwegian, Spanish, French, German and Greenlandish coastlines, as well as the United Kingdom, Faeroes, and Iceland. The strategic display is both esthetic and pragmatic. The tactical program lacks the graphic embellishment of Under Southern Skies, but contains much more information.

There are several frustrations that keep the game from being as enjoyable as it could be. First of all, the strategic game is extremely slow during periods of poor visibility. Since the human player has a battleship that can't catch light cruisers, cruisers and destroyer floillas and the latter don't close range unless a heavy cruiser or battleship has the Bismarck in visual range, there is no real reason to give a visual display after every minor contact. Also, the artificial intelligence doesn't allow the Allies to fight unless they have numerical superiority or are so close to the Germans upon discovery that they can't escape. Nevertheless, the unnecessary visual displays and the long wait for loading the tactical program when not even one shot can be fired slows down the game considerably and diminishes the enjoyment of a potentially good game. Another problem with the game occurs during the two player game. Occasionally, the program will delete superstructure damage and the German has to start all over again (Note: This happened twice during the same game.). In spite of these flaws, there is much that is pleasing about the game. It is extremely enjoyable to play against the computer and truly experience (sometimes quite literally) the "fog" of war. The hidden memory of AP, and the excellent use of weather, time and visibility makes each game a real adventure. The determination by the Allies and the excellent use of weather, time and visibility makes each game a real adventure.

In spite of these flaws, there is much that is pleasing about the game. It is extremely enjoyable to play against the computer and truly experience (sometimes quite literally) the "fog" of war. The hidden memory of AP, and the excellent use of weather, time and visibility makes each game a real adventure. The determination by the Allies and the excellent use of weather, time and visibility makes each game a real adventure.
for this suggestion. First of all, once the Bismark and Prinz Eugen are engaged in battle, they will tend to lose their secondary guns first as they are more easily penetrated by smaller shells. Therefore, the player should use them while he has them. Second of all, once the German ships engage Allied capital ships, they will need all the primary gun ammo they can get.

Another point to remember concerns the strategic portion of the game. Note that when the player attempts to take a short-cut and head directly for the convoy routes, he is almost certainly spotted by the famous "Swordfish Patrol". However, if the player will use the historical route printed on page six of the documentation, he will often avoid battling the "Swordfish Patrol" until later in the game. In this way, victory points will be totalled up more swiftly.

Johnny L. Wilson

Name: Breakthrough The Ardennes
Type: Wargame
System: Atari, C-64
#Players: 1-2
Author: David Landrey
Price: $59.95
Publisher: Strategic Simulations

HISTORY
In mid-1944, Nazi Germany was on the brink of defeat. Hitler needed something to gain a more favorable position in the peace negotiations. That something was a counter-attack from the Ardennes with the objective of capturing the port of Antwerp. The Ardennes area was not heavily defended and used primarily as a resting place for worn out units or a place to bring in new units.

Over the next few months, the Germans secretly built up 13 Infantry and seven Panzer Divisions along a narrow front. These forces were opposed by five Infantry Divisions, three Cavalry Regiments, and one Armored Division. On December 16th, 1944 the Germans launched their offensive, commonly referred to as The Battle of the Bulge.

GAME PLAY
Breakthrough In The Ardennes (BIA) is the simulation of the Battle of the Bulge from Strategic Simulations Inc. It comes on both sides of a standard ATARI disk with side one being the set-up and side two the actual play disk. BIA does not require BASIC and you do not need a joystick to play. You may take the German side against a computer American or you may get a friend and chose your side. There are three scenarios to chose from with the longest one being the entire 12 days of the battle and requiring about five hours to play. The game comes with two plastic maps of the Ardennes area. Flip the map over and on its backside you will see the Ardennes area as it would look in the middle of winter. Scenarios one and three begin on December 16th, and scenario two begins on December 21st.

BIA is played on a large scrolling map with the top of the screen being East and the right hand edge being North. It is a hex grid with each hex representing two miles. Terrain includes woods, rivers, roads, rough ground, and towns. Combat units are also represented by symbols which differentiate between Infantry, Airborne, Engineer, Armor, and Cavalry. Units are further distinguished by Brigade, Division, Battalion, or Regiment. Each unit also carries it historical identification. The American player may have fifty-seven units at any one time while the German may have as many as seventy units.

The game is considered to be at the advanced level and new computer wargamers should allow extra time to become familiar with the system. BIA is played in 12 phases which constitute one turn or one day in the battle. The phases simulate air missions, supply, reinforcement, organization, movement, and combat. Both players have two movement and combat phases.

The basic unit of measure is the operation point. Units are given a certain number of operation points each turn which are expended by performing actions. These actions may include movement, changing to or from travel mode, constructing or destroying bridges, combat, and fortification. In addition to operation points, players also receive air and artillery points. The number of Air points is determined by the current weather conditions while artillery points are always the same for each Divisional pool. You may then allocate artillery points from the Divisional pool to the individual units. Air points may be used for interdiction, ground attack support, or supply air drops. Artillery points simply beefup the combat capability of the unit.

Supply plays a critical role in the game. To be supplied, a unit must be able to trace a line of supply no more than two hexes, unblocked by enemy hexes, to a supplied road.

Another feature of BIA is the Unit Organization Phase. In this phase you may assign artillery, allocate replacements, destroy or build bridges, make supply air drops, and build-up or break-down Regiments and Divisions. The capability to re-organize your units adds a new dimension to the play of the game.

ANALYSIS
As an Advanced Level simulation, BIA achieves all of its objectives. I like the way air, artillery, supply, reinforcement, mobility, efficiency, and combat capability have been blended. I especially like the build-up and break-down capability of units. This game gives a realistic feeling simulation of the Battle of the Bulge. On the negative side, I miss using the joystick to select units and com-
communicate with the computer. Having to press number or letter keys for each selection slows the game down quite a bit. The build-up and break-down of units could also be a little more detailed and provide a little more control of available unit organizations. Overall, SSI has brought us another excellent simulation which can provide a real challenge for the computer wargamer.

Mark Bausman

Name: F-15 Strike Eagle
Type: Arcade/Strategy
System: Atari, C-64
#Players: One
Author: Sid Meier, Grant Irani
Publisher: Microprose Software

Having dispatched a Mig 21 over Syrian territory with a Short-Range Attack Missile (SRAM), I continue flying toward my primary target — Syrian Air Command Headquarters. Radar picks up four surface-to-air missiles (SAMS), and two enemy aircraft on an intercept course. Arming a medium ranged missile (MRM), I fire at the first aircraft. Turning my attention to the four SAMS, I dispatch two flares and engage electronic counter measures (ECM). Two missiles disappear from my radar display. A third explodes on a flare. I watch as my missile impacts the first aircraft and my computer display flashes the message, "Enemy Plane Hit". The target is rapidly approaching. Arming bombs, I dive toward my target ignoring the last enemy aircraft and SAM. Dropping the bombs, I pull up and see on my computer display that the target is hit. I immediately turn to line up a secondary target, WHAM! WHAM! I'm hit by the last SAM and an enemy SRAM from the last enemy aircraft. Pulling up out of the wild dive, I'm treated with a hail of cannon fire from the enemy aircraft. Too low to bail out, my mission ends as I slam into the ground!!

This is the action in Microprose's newest game F-15 STRIKE EAGLE. The action is fast and furious. Not paying attention or, conversely, concentrating too hard on one target can lead to disaster. The game has three levels of play. The Arcade level is purposely simple, so that you can get used to the game. In it the SAMS, heat-seeking missiles, and enemy aircraft are hard to avoid.

As pilot, you're treated with a cockpit display and a Heads Up Display (HUD). The HUD includes a Navigational Chart display which shows enemy positions, your base, and your aircraft position; and a radar screen which can be set to short, medium, or long range. This display shows SAM launches, enemy aircraft, and ground targets as they come in view. Above the radar are four warning lights showing radar lock, infra-red heat source lock, low altitude (below 600 ft), and low fuel warning. And a weapons status display (WSD) in the form of a picture of your aircraft showing all weapons on your aircraft. At the bottom center is the amount of fuel in the tanks.

In the center is the cockpit view. On this are pitch lines to show aircraft attitude, and an Air to Air Reticle (put enemy aircraft in the center of this to score gun hits). Also included is an Air Target Designator box (showing where an approaching enemy aircraft will appear), and a Missile Designator Box (showing where an approaching missile will appear). These boxes move in relation to your aircraft and enemy aircraft and missile movement.

A pilot can bank, roll, dive, and do other maneuvers. You can do a Split S, an Immelman, jinking, High/Low Speed Yoyos, Loops, and any other combat maneuver you deem necessary. All these are explained in the excellent documentation included in the game.

The only problem with the game is an omission in the documentation. The manual says you have to return to the base after completing a mission to rearm, refuel, and repair your aircraft. This means landing at your base. No where in the documentation does it tell you how to land. After several tries, and several crashes, I found that you have to approach the base at below 1000 ft and you are automatically landed.

F-15 has seven missions. Six are based on historical situations, and one is hypothetical. Mission selection is done only in the beginning of the game. The six historical missions are Libya (1981), Egypt (1973), Haiphong (1972), Syria (1984), Hanoi (1972), and Iraq (1981). The hypothetical mission is the Persian Gulf (1984).

Overall, F-15 is an excellent simulation. If you liked Mig Alley Ace, you will love F-15!

Hosea Battles, Jr.
Dan Bunten
of Ozark Softscape

Conventional wisdom has it that to be successful, games should be available in versions for all of the major home computers. The list of target machines currently includes: the Apple II family, Atari (48K), Commodore 64 and the IBM PC/PC Jr. Also to be considered as potential targets are the Macintosh and the Amiga (to be introduced by Commodore).

Typically, a designer creates a design for a particular machine and then converts that design to the other targets. The word port was derived from portage to describe this process. Port can be a noun as in "we have just finished the Apple port of Seven Cities," or it can be used as a verb as in "we will port it to the IBM next."

Another way to handle ports is simply not to do them. Some small publishers have decided to concentrate on a single machine and not ever attempt ports. For instance, Access—who produced Beach Head and Raid Over Moscow for the C-64—apparently have decided to specialize on the graphic and sound features of that machine. But their products look more like "demos" than detailed games. The short side of concentrating on a single machine is that experienced designers (who will spend as much as a year on a single title) can't support themselves on revenues from one machine. Thus, people like Access end up with great graphics but weak game designs.

Faced with these problems, several groups (including Ozark Softscape and Free Fall) have decided that we will design for the highest featured machine of a group and then cut the design as needed to fit into the other targets. We select either Atari or Commodore as our first machine and then port the design to the rest. When we go to the Apple (or IBM) port we give up our "extra" colors and use the built in ones. We also reduce our sounds to only those absolutely necessary as sounds require processor attention (a very scarce resource) and can only use one voice. We replace sprites with "bit shapes" and just have to live with the reduced performance. Despite all of the compromises required, we still produce all versions of a particular product at one time because their ports are so easy. I don't really disagree with their perception that text imagery can be as vivid as a hi-res screen. However, in reality, they do what they do because it's very profitable in their particular niche.

There are other types of LCD approaches that include graphics and sounds. These primarily revolve around designing games first on the Apple II and then porting them to the other machines. This can be done fairly successfully if the design is very strong or unique. Good examples of this would include Pinball Construction Set and One on One. There are, however, numerous bad examples of Apple programs ported to the Atari/Commodore world (where more can be done with graphics and sound than an Apple could not dream of). In general, if a design is built around a limited machine you cannot take advantage of the more powerful features of another machine without a major re-write. Even with such a revision, it is usually not possible to create a game that would handle the intended theme as well as on original design for the high end machine.

Since each of the target machines have their own strengths and weaknesses, it becomes very difficult to design a product that will run well on all of them. One strategy for handling the problem of ports is to write for the Lowest Common Denominator (LCD). The most obvious examples of this approach are the "text only" games: Millionaire, its sibling games Baron and Tycoon, use the strategy to perfection. Not only are they "text only" but they are also written in basic so that ports are a trivial matter. The publisher can thus produce these games on any machine that has a video screen, a keyboard and Basic (which includes the TRS-80 and CP/M as well). Although I personally find Millionaire very boring and tedious, the advantage of this approach is obvious.

Infocom has also bought the LCD strategy. They will typically introduce all versions of a particular product at one time because their ports are so easy. I don't really disagree with their perception that text imagery can be as vivid as a hi-res screen. However, in reality, they do what they do because it's very profitable in their particular niche.

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But there are always those petty detractors who will point out in magazine reviews that the theme music on the Atari had four voices while the Commodore only had three (and the Apple had none). Or that the Commodore version takes almost four minutes to load. To them I say "look at the hardware specs!" We aren't responsible for designing hardware. We just write games!

Next time you pick up a game try to decide if the original was written on your machine or ported over. If it looks like a port but is still a good game, then just enjoy it. If, however, it's a shabby "knock-off," then gripe to the publisher, write to computer magazines and let yourself be heard. Sometimes you have to let people know where you draw the line!
A SECOND CHANCE to GET the NEW WORLD RIGHT.

IF COLUMBUS HAD LANDED IN NEW JERSEY; if Cortez had been nicer to Montezuma; if Pizarro had been a more generous soul, would the world today be any different?

If you've ever wondered about things like that, you'll like Seven Cities of Gold very much indeed.

It's a kind of adventure. An unusually rich and technically impressive one with new continents to explore, natives to encounter, resources to manage and trade routes to establish. But beyond all the neat stuff Seven Cities throws up on the screen, there's something else happening here.

It feels quite odd to look at the map and see nothing. Of course you have to explore the more than 2800 screen new world in order to map it. But the way the natives act, the way you get older, the way seasons change and your men behave, and the way your reputation precedes you gives you a sort of feeling that's unexpected in computer games. It's deeper. Maybe a little disquieting. It plays as much in your head as it does inside your computer.

Seven Cities does all this with the real world or, better still (since the "new" world really isn't anymore), it will construct any number of completely detailed hemispheres for you to try your hand with.

Designed by Ozark Softscape (the people who made M.U.E., Infoworld's "Strategy Game of 1983"). Seven Cities is about as near a recreation of history as has ever been accomplished, with or without a computer.

Find it. Stomp around in it. See if you can't do a better job than all the celebrated figures who got us into the mess we have to deal with today.

SEVEN CITIES of GOLD
from ELECTRONIC ARTS™
The final net score was 1084, a decisive USN victory:

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<tr>
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<th>USN</th>
<th>IJN</th>
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<tr>
<td>Strategic</td>
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<td>83</td>
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<tr>
<td>Total</td>
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At the conclusion of the game, hindsight reveals that I sank Akagi, Kaga, Soryu, Zuiho, Inta, plus 5 DD's, 15 TR's, 3 APD's, 2 MSW's and 1 DE. Hiryu had 30% damage. Hosho had zero damage, but no surviving aircraft. The following IJN ships had light to moderate damage: battleship Kongo, 4 CA's, 2 DD's, 2 MSW's and 5 auxiliary ships.

No USN ships were sunk, but Yorktown was crippled, and two other CV's lightly damaged. Five USN CA's were badly damaged, and two of these were dead in the water and burning. There were heavy aircraft losses on both sides.

**CONCLUSIONS**

The night offers the best concealment. You should use the night turns to set up early morning surprises for the enemy. Hit and run with your CV's. Position many air search missions in the pre-dawn hours to hopefully spot the enemy at daybreak, before they find you. In general, by mid-morning the enemy will have found your CV's, and this is not a good time to be in range.

It is important to try to get the first air strike against the enemy CV's before they hit your CV's. If several IJN CV's are crippled early, the program apparently concentrates on rotating defensive fighter cover over its crippled CV's, and does not read many offensive strikes.

The program apparently neglects to cover its transports with battleships, even when they are very close to US warships. The USN cruisers are a powerful force. The USN player should send cruisers to hunt the transports. If you sink enough transports, the IJN cannot capture Midway. I doubt this tactic would work against most players who would probably send BB's to cover the transports.

The program apparently advances the IJN fleet to Midway even after it has no chance of capturing Midway. It is slow to retreat even after it loses most of its airpower.

I lost about 20 aircraft in ditchings at Midway or TF12. Most of these were due to my carelessness, but some were due to my optimistic estimates of endurance and range. It is important to try to make the first strike at long range, even if you must sacrifice some returning pilots.

Carrier Force is a superb game, but I would like to see a second edition with improved solitaire play for the Midway scenario.

---

**NAME GAME (cont.)**

an investment tax credit of 10% of the purchase price. (This is separate from the depreciated amount and is applied directly against the tax you would owe otherwise). If your equipment investment is small, you can simply write it off in one year, but you lose the tax credit.

However, this is just the beginning. If you work at home, you can deduct a portion of your rent, power, heat, and telephone bills. (If you rent a separate office, all the associated costs are deductible). Games, joysticks, blank disks, printer paper, COMPUTER GAMING WORLD, lunch with a collaborator, trips to the arcade, game conventions: all these are deductible, as is driving there (@ $.21 a mile). If you videotape your playtest sessions (which can be very helpful in debugging), you can add a VCR to the list. If (like us) you work better with music or use it to drown out distractions, you can write off your stereo system — or at least that part of its cost that represents its business use.

Q: There must be a catch to this.
A: There are several. Since the IRS has a vast bureaucracy to support and the CIA, the UN, Social Security, a nuclear arsenal, foreign aid, etc., etc., to pay for, it takes a dim view of any procedure that might place any of your money out of its reach. Therefore, you should get in the habit of saving receipts, keeping records, and making notes to prove expenditures and show the business functions of trips and meals. Second, all expenses must be “reasonable and proper” — your definition unless you’re audited, theirs if you are. (Make sure yours is defensible!) Finally, unless you make money occasionally (two of five years is the standard guideline) or can show that it’s impossible that there is no blocking terrain for shooting purposes? I can find a table which says that a unit in clear terrain can be spotted from five hexes away, but I cannot find if it makes any difference whether the four intervening hexes are clear or forest (that’s four miles of woods you are sighting through). I could mention several other puzzlements I still have about the games, but none of these keep me from playing. I would just like to be aware of the same details of the simulation which Roger Keating certainly knew when he programmed that computerized opponent that I have so much trouble beating.

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**SUPERPOWERS (cont.)**

mode is not even hinted at in the body of the rules. But, if you study the appendix and really think about what you are reading, there it is. The combat results are based on the difference between the Attack Factor and the Defense Factor of the two units involved. The contribution to the Attack Factor from the attacking unit’s strength is taken as the strength points divided by four and truncated. Thus, both of the tank units in the two cases above contribute three to the Attack Factor; they are identical in combat. The presence of one unit nearby in support mode (regardless of how weak it is) in the second case gives a bonus of three to the Attack Factor. The effect of that one supporting unit is thus equivalent to doubling the strength of the attacking tank unit! I will not argue whether this is losing touch with a true representation of modern warfare, since my example would occur only rarely (that remnant is dead meat if you are not pulling it back to reorganize and rebuild). Rather, I want to show that you can’t just scan the rules and sit down to play with any hope of figuring out what is happening to you and why.

Perhaps “lack of documentation” is not the right rap for the 1985 games; there are lots and lots of games out with much worse documentation. However, the rules for the “1985” games are cursory and leave several significant questions as to how to play well. I know how to fire smoke with my artillery and I can find the effect of smoke on movement, but I cannot find any effect on sighting through smoke or conducting combat into or out of smoke (could it be that we can see right through it?). Is it possible that there is no blocking terrain for shooting purposes? I can find a table which says that a unit in clear terrain can be spotted from five hexes away, but I cannot find if it makes any difference whether the four intervening hexes are clear or forest (that’s four miles of woods you are sighting through). I could mention several other puzzlements I still have about the games, but none of these keep me from playing. I would just like to be aware of the same details of the simulation which Roger Keating certainly knew when he programmed that computerized opponent that I have so much trouble beating.

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**FINAL NOTES**

My gripes about documentation aside, the three "1985" games are all worthwhile simulations. They will appeal mostly to the "somewhat more serious" wargaming audience. Gamers with no experience beyond Frogger will find them too complicated, while hard-core students of current military science will complain that they do not cover the subject in enough depth. If you want to try one, start with Germany 1985. The three games are similar enough that if you like it, you will also like the other two. If you don’t like it, there is little chance that you would want the others also.
One room that’s interesting is the one with the bars on the wall. Another place that bears examining is the one with the piled-up bunks, behind which is a door. Now, if you could just get those bunks out of the way, you’d be able to continue. Wonder how you could move those bunks? And, even more important, keep them out of the way?

Once you’ve done that, you can proceed to the room beyond, which has a ladder going down. Of course, you’re a little nervous about using it, considering what just happened with the other one, but you don’t have a choice, so down you go! Crash! Talk about deja vu! Fortunately, this ladder isn’t totally destroyed, but you can’t climb back up again. At least, not at the moment.

So, you might as well go on. Err, well, maybe you don’t want to, since the next room houses a giant, sleeping squid. Hmmmm. Now what? If you remember the saying about “sleeping dogs”, you shouldn’t have a problem.

In the next room along, you find...a chest! Wow! Could this be it? Maybe. Why not leave it for now, and continue on? The next room doesn’t look too promising; all it has in it are some skeletons. Still, best not to take anything for granted here!

And in the last room is...another chest! However, now you have a little problem. You can only get one chest back to the ship above, and you can bet your little pink diving booties that only one of these chests has something worthwhile in it. Which one? Well, there’s the hard way (trial and error), and the easy way (if you have the right thing with you).

Once you know which chest is the right one, you have to get it outside the ship. This is pretty easy, actually, just look around...but be very careful! Now comes the hard part, getting yourself out and back topside.

When you think about it, though, it really isn’t all that hard, after all. First you have to get back up to the middle deck. The partly-broken ladder is almost in reach; if you were just a little taller, I’ll bet you could make it.

After that, you need to make your way up where the other ladder used to be, the place where the mast with the rope is. This one is a little trickier. The ladder is gone, so you can’t use it at all. But, if you could do something about that rope? However, the rope is a bit out of reach. Still, if you looked carefully at everything you saw along the way, you should have an item with you that will help you now. And once you’re back on the top deck, you just have to go up, and you’re done! Congratulations, you can retire at an early age!

Until next time, happy adventuring! The Scorpion’s Tale is copyrighted © 1984 by Scorpia. all rights reserved.
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There were 342 RIDs turned in by press time for this issue. Newly rated games and updated game ratings are listed with bold type in the table on page 46. The breakdown by machines was: Atari — 42%; Apple — 33%; C-64 — 19%.

**GAME RATINGS**

The table on page 46 includes games evaluated by our readers. For a game to be included in this listing it must first have been offered for rating in our regular RID rating system. Games offered for evaluation are those covered in the magazine and/or those having a good sales record during the time of evaluation. Once offered for evaluation, the game must have been evaluated by a sufficient number of readers to be included in the results. Any game not evaluated by at least 10% of the respondents was not included in the results.

Games were rated on a scale of 1 (terrible) to 9 (outstanding). Respondents were asked to consider such things as PRESENTATION (graphics, sound, packaging, documentation); GAME DESIGN (design, playability, interesting?); LIFE (does the game wear well?)

RID #17 (Use card provided)

On this page a number of games and articles are listed for evaluation. Please take time to evaluate these games and articles. Use the guidelines above for game evaluation. Leave blank any game which you have not played enough to have formed an opinion.

Please rate articles on the basis of the article itself, not your opinion of the game being reviewed. Enter a zero for any article that does not interest you.

**PLEASE MAIL RID #17 CARD BEFORE JANUARY 1985.**

**GAMES**

1. 7 Cities of Gold (EA)
2. M.U.L.E. (EA)
3. Firefist (EA)
4. Wizardry (Sir-tech)
5. Ultima III (Origin)
6. Fighter Command (SSI)
7. Arcon II/Adept (EA)
8. War in Russia (SSI)
9. Golf Strike (AH)
10. Legacy of Lylgymay (Sir-tech)
11. Sunday (FTL)
12. Dreadnoughts (AH)
13. Voyage of Space Drigger (AH)
14. Raid on Benson Bay (Bredderbund)
15. Sing In Africa (Sim. Canada)
16. Clear for Action (AH)
17. F-15 Strike Eagle (Microprose)
18. Breakthrough the Ardennes (SSI)
19. Ghostbusters (Activision)
20. Spy Vs. Spy (First Star)
21. On-Court Tennis (Gamestar)
22. Cutthroat (Infocon)

**ARTICLES**

23. F-15 Review
24. Commodore Key
25. Return of the Classics review (micro)
26. Panzer-jagd reviews
27. Dreadnoughts review
28. Scenarios for Galactic Gladiators
29. Carrier Force Replay
30. Name of the Game
31. Learning Game
32. Breakthrough the Ardennes review
33. When Super Powers Collide survey
34. Dispatches
35. Mail Order Games
36. Strategically Speaking
37. Scorpion’s Tale

**MICHELSONES**

38. What computer do you own?
   1. = Apple
   2. = Atari
   3. = Commodore 64
   4. = IBM PC
   5. = Other (please specify)

A.B.C may be used for letters to the editor. If you write a letter to the editor, please include your name and home town.

**WRITING FOR COMPUTER GAMING WORLD**

Almost all of the articles appearing in CGW come from active readers of the magazine. We invite your submissions of articles, artwork, humor, etc. Our standard pay is two cents per word for copy, and artwork is negotiated on an item by item basis.

**REVIEWS**

The majority of articles in CGW will be reviews. These will fall into two categories: 1) (micro-reviews) of 300 - 600 words; and 2) feature reviews of about 1000 - 2000 words. Micro-reviews should contain the following: 1) The information which goes into the Basic Information Box (see this issue); 2) General description of the fiction/background of the game; 3) A more detailed description of the graphics, documentation, and above all the game design itself; 4) A discussion of the strong and weak points of the game. The strengths and weaknesses that you write about should be those of that specific game, not those of the game type; 5) Possibly include some hints on playing the game well; 6) A summary of the game which might suggest what type of computer gamer will want to buy this game and/or what type of gamer will want to pass it by.

A micro-review cannot cover most games in detail but can give an overview of the game to a potential purchaser and, if appropriate, suggest some strategies for playing the game well. Any game released in the past 12 months is eligible for a micro-review if it has yet to be covered in CGW.

A Feature Review will do everything that a micro-review does but in greater detail. The subject of a feature length review should be a new game (again, released within the last 12 months). When appropriate, CGW will print reviews of books, hardware, etc. as they relate to the computer gaming field.

**STRATEGY AND TACTICS**

While many reviews will contain suggestions on strategy and tactics, we also welcome articles which are primarily strategy/tactics oriented. This type of article will go into detail concerning what techniques provide high scores or help a player better attain the goal of the game.

**SCENARIOS AND REPLAYS**

Formal and informal scenarios can be designed for some computer games. A formal scenario is one which uses the scenario designing routine of the game, as in SSI's Galactic Gladiators. An informal scenario is one in which the writer makes up an alternate goal for the game with success being determined independently of the game's stated scoring system. An example of this would be the "Castle Wolfenstein Dash," in which a point is awarded for each room entered minus one point for every guard killed.

Replays are reports of the action on a turn by turn or other basis from a replaying of a popular game which has been previously reviewed. These should be written in such a way as to give some idea of the feel and the flow of the game.

**FORMAT**

The preferred format in which to send your copy to us is via telecommunications to one of the following addresses: on Compuserve via email to 76703,622; on The Source via small to TCI920; and on MCI Mail to GAMING. Copy can also be telecommunicated directly to our offices with prior arrangement at (714) 776-4979.

If you do not have access to a modem or appropriate software, the following are our requirements for hard copy manuscripts:

1) All copy should be typed and at least double and preferably triple spaced with one inch margins all around.
2) Avoid all upper-case printing if possible.
3) Use standard white paper of a non-erasable type.
4) Type your name, address, and phone number on the cover page. On all other pages include the article name and page number.
5) PLEASE double-check the spelling, grammar, and punctuation.
6) If you wish the return of your manuscript, please include a SASE.

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### Game Ratings

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