

VOL. 3 NO. 6 \$2.75

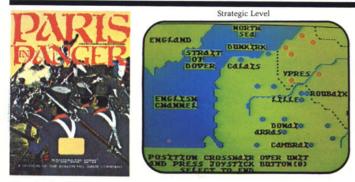
WIZARDRY III ULTIMA III COMMODORE KEY

SSI GAMES GAME RATINGS



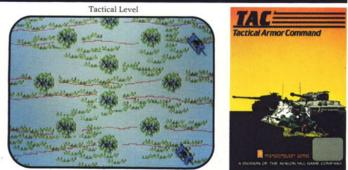
Not the movie the real things!

The Avalon Hill Game Company, America's premiere strategy game maker, has combined their years of experience designing military strategy board games with the latest in artificial intelligence for home computers. The resulting computer games are designed to assist you, the player, with combat results, lines of fire and double hidden movement in two player games and provide a worthy opponent in solitaire games.



Paris in Danger: A simulation of Napoleon's 1814 campaign in France. One of Napoleon's finest, against the invading Allied Armies. (Austrian, Prussian and Russian). You can choose to take the role as Napoleon, Commander Schwarzenberg, or play both sides to re-create the actual campaign. PARIS IN DANGER is unique, in that it allows the players to compete on both the strategic and tactical levels, on a full-color scrolling map of France and surrounding countries.

For all Atari Home Computers, 48K Disk: \$35.00



T.A.C.: Tactical Armor Command during World War II. You control individual tanks, anti-tank guns, and infantry squads. For one or two players featuring outstanding Hi-Resolution graphics, enhanced sound, and stimulating challenge. Five different scenarios are available from Meeting Engagement, Rear Guard, and Static Defense, to Breakout and Stalemate. The players control up to eight vehicles, guns and squads simultaneously, utilizing the equipment of either the German, British, Russian or American forces. Atari & Apple Disks (48K): \$40.00

Atari 4/800 (40K), TRS-80 (48K)

Atari Home Computers (48K) TRS-80 I/III (48K) diskettes: \$35.00

cassettes: \$30.00 Apple II (48K)



LEGIONNAIRE (by Chris Crawford):

Consumer Electronics Showcase Award for Innovative Programming Wargame of the Year, VIDEO GAMES PLAYER Magazine Nominee for Wargame of the Year, Game Manufacturers' Association

"On a scale of 1 to 100, this is a 95" SOFTLINE Magazine, March '83. "Legionnaire is a wonderful game that combines the graphics and movement of arcade games with the depth of strategy games" BYTE, March '83. "An entertaining, attractive game in which thinking is more important than fast reflexes" COMPUTE!, July, '83.

For all Atari Home Computers, 16K Cassette: \$35.00 32K Diskette for Atari Home Computers: \$40.00 Apple II Computer Diskette (48K): \$40.00

*Trademarks of Warner Communications, Apple Computers Inc. and Tandy Corporation.

AVAILABLE AT LEADING **COMPUTER GAME STORES EVERYWHERE**



Features include double hidden movement, solitaire or two player option, morale factors, and most unique, a game system that actually lets you control squad level units in life-like situations.

permits original scenario development or pre-programmed ones.

American forces are represented in this WWII simulation which blends the allure of computerization with tabletop gaming. CLOSE ASSAULT

CLOSE ASSAULT: Advanced wargame of tactical infantry combat. Russian, German, and

MICROCOMPUTER games® The Avalon Hill Game Company

4517 Harford Road • Baltimore, MD 21214 • (301) 254-5300

or call Toll-Free: 1 (800) 638-9292 for the name of the dealer near you. Ask for Operator A.

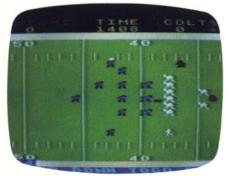


Four exciting sports games from Avalon Hill

Colts romp over Dolphins, 24-7

Last night's sensational gridiron duel proved there are no underdogs in Avalon Hill's Computer Football Strategy.

The Colts ran in the first Miami punt and then capitalized on a Dolphin fumble to jump out to a quick 14-0 lead.



Early in the 1st qtr. with Colts in possession ATARI SCREEN

Dropped passes, penalties, fumbles ... all took their toll in the exciting contest in the home of Ogie Pincikowski, newest armchair quarterback. Says Ogie with some satisfaction, "It's the next best thing to being out on the gridiron itself!"

In Avalon Hill's Computer Football Streagy you pit your skills as play caller again t the computer or go head-to-head with a live opponent.

Atari[®]1. puters 32K Disk (joystick required, 64[®] Disk; IBM[®] PC 64K Disk; Im. 32K Disk and 32K Cassette for Models I/III/IV; Commodore 64[®] Cassette & Atari[®] Home Computers Cassette. All Diskettes \$21; Cassettes \$16.

Marciano to spar Ali

Tomorrow night's 15 round **Computer Title Bout** matchup between two of professional boxing's greatest fighters promises to be historic in all senses of the word. This "Match from the Past", as the bout has been dubbed, is slated to begin at 9pm in the basement of Marvin "Max" Maxwell's house on the outskirts of Baltimore. States Max, "I've always wondered if the incredible boxing skills of Ali could stand up to the sledgehammer fists of the Brockton Blockbuster."

Avalon Hill's **Computer Titlebout** will factor in dozens of variables in deciding the ultimate winner, round by grueling round.

Adds Max, "The game gives you the statistics of hundreds of contenders, and lets you do the pairing up. In fact, you can even create your own fighter. Computer Title Bout is a fast-moving game for two players, or solitaire against yourself."

Atari Home Computers 48K Disk for \$30.

Tournament Golf a hole-in-one

"Sixteen feet to the hole and a steep break to the left." Harvey Hornbuster carefully considered his predicament. The entire match had come down to this last putt. Sink it and he's a hero; miss it and he'll be buying the drinks.



Hornbuster teeing off on second hole

Carefully, with a steady hand and just the right twist to the wrists, Harvey took his putt. Looking over his shoulders at the video screen, the other members of his foursome held their breath and stared as the ball steadily approached the hole and then disappeared. A perfect putt!! **Tournament Golf** brings you all the tense excitement of a real day out on the links right in your own home. Hooks, slices, muffs, traps, water hazards and rough ... it's all there and more, including two challenging 18 hole championship golf courses.

Apple Home computers 48K Disk for \$30. Joystick/Paddles required.

Upstart Cubs Take AH Series in 6

Chicago's stunning victory yesterday in the living room of Computer Statis Pro Baseball's AH-League manager Milton Mousehouse didn't surprise the team's owner, Fred Smith. Commented Smith after the victory, "It was just sound management. My lineup selection, pitcher choices and timely substitutions carried me through."

Trailing 4 to 1 going into the ninth inning, the Cubs' bats finally came alive as they pounded in 5 runs to win the game, and the championship, 6 to 4. A good showing for Fred's cubs, especially after dropping the first two games to the defending champions, the Baltimore Orioles.

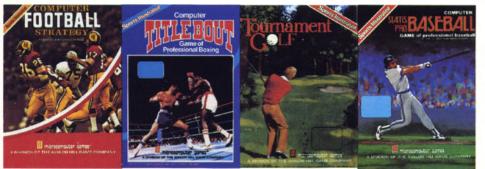
Added Milton, "Avalon Hill's Computer Statis Pro Baseball places you in charge of your favorite ballclub. Your decisions can make an also-ran into a pennant winner. You don't play against the computer. You can, however, play against yourself and have the computer do all the bookkeeping. It will even supply you with a printout of the boxscores after each game, if you have a printer."

Of course, you can also do as Milton and his friends did and organize a league of your own, capping it off with your own championship series. Computer Statis Pro Baseball puts you in the dugout, so to speak, especially with Milton's wife Mortina supplying the hot dogs!

Apple Home Computers 48K Disk for \$35; TRS-80 Mods. I/III/IV: 16K Cassette \$25 & 32K Disk \$35.

A DIVISION OF The Avalon Hill Game Co. 4517 Harford Rd. • Baltimore, MD 21214 AVAILABLE AT LEADING COMPUTER GAME STORES EVERYWHERE

or call Toll-Free: 1 (800) 638-9292 for the name of a store near you. Ask for Operator S. * Trademarks of Warner Communications, Commodore Business Machines, International Business Machines and Tandy Corporation.



Six great games to make you really glad you own the COMMODORE 64".

Playing games is probably one of the main reasons you bought the computer you did - the COMMODORE 64" When it comes to games, there are none more sophisticated, challenging - and just plain fun - than the strategy games from SSI.

> KNICHTS OF HE WESERT

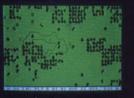
We made our considerable reputation by producing some of the finest games for the Apple® To make sure all you C-64 owners out there don't get left out, we're converting as many of our games to your favorite computer as we possibly can.

24 Here's a realtime wargame that gives you the speed of arcade games and sophistication of fastest tank battle games choose from over 70 tanks. from the Nazi Abrams M-1.



Voted "1982 BEST COMPU-TER SPORTS GAME" by Electronic Games magazine, Compute Baseball" lets you manage any NL and AL teams of past and present. All the op tions of a real manager are at your disposal. You can even make up your









Here are just six of our ever-increasing line of C-64 games. Best of all, they're all waiting for you at your nearest computer/ software or game store - today!

Our games are covered under a 14-day satisfaction or your money back" guarantee.

-6 Take to the skies with your trusty Sopwith Camel or Fokker DR-1 or any number of World War I planes You can set up duels between two planes or stage grand dogfights involving as many as 20 On disk \$39.95

6.

You can set

up your own

championship

bouts using

real champs

to answer the

age-old ques-

really was the

greatest of all

Joe Louis out

time? Could

wit Muham-

med Ali

Could Jack

slug Larry

Holmes?

you get to manage!

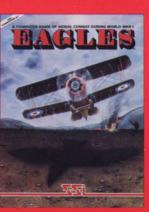
On disk

\$39.95

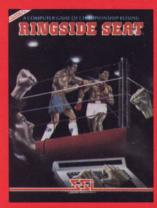
Best of all

Dempsey out-

tion: Who









Screen displays are not necessarily from the Commodore 64"

If there are no convenient stores near you, VISA & Mastercard holders can order direct by calling 800-227-1617, ext. 335 (toll free). In California, call 800-772-3545, ext. 335.

To order by mail, send your check to: STRATEGIC SIMULATIONS INC. 883 Stierlin Road, Bldg. A-200, Mountain View, CA 94043. (California residents, add 6.5% sales tax.)

WRITE FOR A FREE COLOR CATALOG OF ALL OUR GAMES.

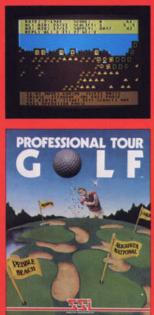
42 is faithfully recreated here. Just as knights on tall horses rode out on the First Crusade nearly a millenium ago, you'll have a chance to ride in your Crusader tanks against the invading Nazi forces. Disk & cassette. \$39.95 If you've even dreamed of playing the pro-tour golf

The North

African Cam-

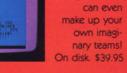
paign of 1941-

circuit on the world's finest courses with the likes of Arnold Palmer and Jack Nicklaus this game is your dreamcome-true The famous Pebble Beach course is faithfully reproduced. This is golf simulation at its best! On disk \$39.95





Apple is a registered trademark of Apple Computer, Inc. Commodore 64 is a trademark of Commodore Electronics. Ltd.





STRATEGIC SIMULATIONS INC



Vol. 3 No. 6

December 1983

STAFF

Editor: Asst. Editor: Operations: Ad Director: Ad Manager: Ad Coordinator: Art Director: Layout: Typesetting: Printing: Cover Art: Additional Art: Russell Sipe Kirk Robinson Suzanne Sipe Jay Eisenberg Dona Fischer Tim Finkas Russell Sipe Harmony Graphics John McCoy Printing Tim Finkas Mark Eliot

COMPUTER GAMING WORLD (ISSN 0744-6667) is published six times per year by Golden Empire Publications, Inc., 1337 North Merona St., Anaheim, CA 92805. Second Class Postage Paid at Anaheim, CA 92803.

POSTMASTER: Send address changes to Computer Gaming World, P.O. Box 4566, Anaheim, CA 92803-4566.

COMPUTER GAMING WORLD is available at computer, book, and game stores; and through subscriptions. The subscription rate for one year (six issues) is \$12.50. Canadian subscriptions add \$5.00. Outside of United States and Canada add \$14.00 (Foreign air). All payments must be in U.S. dollars, made by check drawn on a U.S. Bank, Visa Card, Master Card, or money order.

Psalm 9: 1-2	
Compuserve:	72435,1434
Source:	TCL920
Editorial office:	714-776-4979

NATIONAL ADVERTISING REPRESENTATIVE:

JE PUBLISHERS' REPRESENTATIVE COMPANY 6855 Santa Monica Blvd., Suite 200 Los Angeles, CA 90038 Los Angeles (213) 467-2266

San Francisco	(415) 864-3252
New York	(212) 724-7767
Denver	(303) 595-4331
Dallas	(214) 660-2253
Boston	(617) 437-7628
Chicago	(312) 445-2489





ADVERTISERS

Accelerated Computer Research48
Atarisoft
Avalon Hill (Microcomputer Games) C2, 3
Balboa Game Co
Bram Inc
Broken Timber Press
Computer Palace7
Data Center
Discovery Games9
Gamesmanship54
Grandstand Co
Hayden Book Co13
Mach-Ina14
Marco Polo15
Micromax
Penguin SoftwareC4
Rising Sun Software26
Sierra On-Line
Strategic Simulations4, 21, 36, 53
Task Force Games40

FEATURES

ROBOTWAR:	12
ULTIMA III	
OPERATION WHIRLWIND	
REACH FOR THE STARS	
LEGACY OF LLYGAMYN	
BROADSIDES	
NORTH ATLANTIC '86	

Departments

Inside the Industry 6
Taking a Peek
Letters
Dispatches 16
Scorpion's Tale 17
Name of the Game
Tele-Gaming
Atari Arena
The Commodore Key 38
Micro Reviews (Flying Tigers, Space Station Zulu, The Enchanter,
Fortress, Secret Agent)42
Game Ratings 52
Reader Input Device

BACK ISSUES ARE AVAILABLE Send \$2.75 plus \$1.00 postage and handling per copy

3.1 — Test Pilot (fiction); Serpentine; Cosmic Balance; S.E.U.I.S.; Armor Assault; The Arcade Machine; The Atari Arena; The Learning Game; INDEX; and more!

3.2 — Computer Games in 1983; Cosmic Balance Tactics and Ship Design; Zork! Overview; Ultima II; Millionaire; Robotwar Tournament Results; Mockingboard Sound Board; Epidemic; Game Ratings; and more!

3.3 — Close Assault; Computer Ambush; Adventure Game Contest; Pinball Construction Set; Germany 1985; Galactic Attack; Two Computer Baseball Leagues; Chess 7.0; 100 games rated; and more!

3.4 — Suspended; M.U.L.E.; Battle for Normandy Strategy; Serpent's Star Hints; Cosmic Balance Contest Results; Knights of the Desert; Galactic Adventures; Computer Golf!; Bomb Alley; Game Ratings; and more!

3.5 — Electronic Arts; Combat Leader; Archon; Lode Runner; TAC; Paris in Danger; Boardgamer Meets Computer; Cosmic Balance II; Deltra Squadron; ZORK III Tips; and more!

Most Volume 2 issues are also available.

INSIDE THE INDUSTRY

by Dana Lombardy



Percent

of

Readers

Results of the Readers Survey from the July/August 1983 issue of CGW.

Question

- I buy about the same number of computer 7.2 games each month-even games I haven't actually seen or played.
- I buy about the same number of computer 19.8 games each month, but I'm more selective now and don't usually buy until I see a game.
- 3. I buy fewer computer games now, but I'll 17.9 still occasionally buy a game that I haven't seen yet.
- 4. I buy fewer computer games now, and I'm 55.1 more selective about which ones I buy.

Those who checked numbers 3 or 4 above were then asked to check one of the following.

- 5. I'm spending less money now each month 56.9 than in the past on software, but almost all of it goes to new games.
- 6. I'm spending less money now each month than in the past on software, but almost all of it goes to non-game programs.
- I'm spending less money now each month 37.1 than in the past on software, but this is equally split between games and other software.

In analyzing these results, it's apparent that the reader of *CGW* is more than just a casual computer user. In fact, a good number can be considered "hardcore" computer game hobbyists. Second, as a serious hobbyist, you spend on the average more money in a year than other computer-product purchasers (we're excluding business purchases and considering only at-home computer users).

These assumptions make the survey statistics even more important than a general survey would reveal. You the reader of *CGW*, are the "leading edge" of the home computer revolution in this country. Your attitudes and buying habits affect the industry far beyond your total numbers.

For example, while the hardcore computer game hobbyist may only represent 10 to 15% of all home computer users (I suspect it's even higher), you spend close to onethird of the dollars that go to computer games. In fact, for dozens of small publishers, the purchases of computer gamers represent almost all the money they make when they offer a new title.

We're not saying these things just to make you feel important. These are facts that market-wise software publishers consider when they decide to release a new game or expand their line.

And what are you telling the industry? Your answers to our survey confirm trends reported by stores and distributors over the past months: computer game sales are still good, but overall game sales have slowed, and the average customer is being more careful with his money.

73 percent of you are spending less on software now that you have in the past. For whatever reasons-whether it's too many titles to choose from, or too many bad games- you're cutting back on the number of items you buy and the amount you spend. And if you, the hardcore hobbyist, is spending less on software, other computer users are also probably adjusting their spending downwards as well. The days when a publisher or store could just stand back and watch sales grow automatically are over. It's a very new and different market game from this point on.

However, one bright spot is that computer games per se haven't died. In fact, 94 percent of you are still buying a lot of games. Although you may be spending less on games, you're still maintaining your interest in them.

That's good news for publishers. It means that they and the stores are going to have to offer you better service and better games in order to keep their share of your gamebuying dollars.





We specialize in ATARI Compatible Products So we know what works best!!! Call for the latest info... (503) 683-5361

OPEN Monday - Saturday, 9 to 6 2160 W. 11th Avenue Eugene, Oregon 97402

(Orders Only, Please) For Information Call (503) 683-5361



In addition to games mentioned elsewhere in this issue, the following products have been received by CGW. Some of these products will receive more detailed attention in future issues. Readers wishing to review any of these games should contact CGW.

American Educational Computer 2450 Embarcadero Way Palo Alto, CA 94303

> **READER COMPREHENSION SKILLS:** AEC has a 6 program series entitled EASYREADER. RCS is the second of the series. The other titles are Learn About Sounds in Reading; Learn About Words in Reading Parts 1 and 2; and Reading Comprehension Skills 1. The Easyreader series of programs are packaged in sturdy attractive vinyl boxes. Lessons are individualized to move learners along at their own pace. Sound, color, graphics, and animation are employed to keep students on-line and learning. Special guidelines instruct tutors how they can help by pronouncing words, prompting, etc. Thus the program can be used as a family activity. Apple II 48K Disk.

Ark Royal Games P.O. Box 14806 Jacksonville, FL 32238

> ACROSS THE RUBICON 16K and ATR 32K: Computer wargame based on the Battle of Huertgen Forest (just prior to Battle of The Bulge). Player controls the American forces in an attempt to capture pillboxes, cities, and an airfield. Up to 42 units including infantry, light tanks, heavy tank, and supply are controlled by the player. Support comes from artillery, tac air, and intelligence reports. The 32K version adds mortar units, German artillery, counter-battery fire, unit locator, group movement, strategic map, etc. 16K has four levels of play, 32K has game save and five levels of play. 16K is cassette; \$19.95. 32K is disk or cassette; \$24.95. Radio Shack Color Computer.



THE ELECTRONIC FLASH CARD



LEGIONNAIRE

BOMBER COMMAND: 16K Radio Shack CoCo game of strategic air operations in Europe, WWII. You the Allied air armada on both a tactical and strategic map of Europe. Points are gained by destroying military and industry targets with bonuses for Berlin, Munich, and other mission targets. A squadron HQ display tracks losses and totals. \$19.95. Cassette.

MISSION: EMPIRE! A strategic space warfare game in 16K or 32K. Formerly distributed by Strictly Color Software. CoCo, \$19.95. Cassette.

GALACTIC TAIPAN: A space economic game in which futuristic merchants must use 17th Century commerce tactics. 32K cassette for the CoCo.

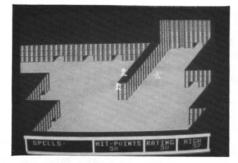
Avant-Garde Creations P.O. Box 30160 Eugene, OR 97403

THE ELECTRONIC FLASH CARD: An educational program for the Apple II which makes use of flash card style drills. You input your own flash card problems (a French-English quiz is included with the program). The system supports most foreign accent marks and characters. Questions can be structured in any of 7 formats. A password entry system prevents illegal access to your quizzes. Looks to be a good learning tool. Disk. \$29.95.

Avalon Hill Game Co. Microcomputer Games 4517 Harford Rd. Baltimore, MD 21214

> LEGIONNAIRE: Chris Crawford's popular Atari wargame is now available for the Apple II. Legionnaire is a real-time game of combat between the Roman Legions of Julius Caesar (you) and the barbarian hordes





ZOMBIES

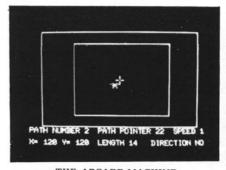
of Gaul. You can command up to 10 legions against the Gauls who will always outnumber you 2-1. The Atari version rates 6.93 in RID, the Apple version should be just as popular. Disk. \$40.00.

Blue Chip Software 19818 Ventura Blvd. #240 Woodland Hills, CA 91364

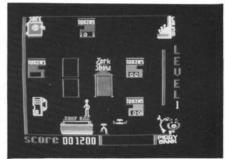
TYCOON: The second in a series of economic "games", TYCOON is a complex yet very enjoyable simulation of the fast paced commodities market. During weekly turns you are called upon to buy and sell options on commodities ranging from soybeans to Japanese Yen. Available for a wide variety of machines, TYCOON is both a valuable learning tool and a fascinating game. \$39 to \$49 depending on the version.

Bram Inc. 18779 Kenlake Place NE Seattle, WA 98155

> **ZOMBIES:** Here is a nice looking fantasy adventure game for the Atari. The 3-D oblique projection scrolling graphics are outstanding. Your task is to retrieve seven crowns which are hidden in seven dungeons of Wistrik the Evil. In addition to the great graphics ZOMBIES features on-line instructions, one-player and cooperative two-player modes, two levels of difficulty, and high score saved to disk. There are 74 different dungeon screens. Review coming. \$34.95.



THE ARCADE MACHINE

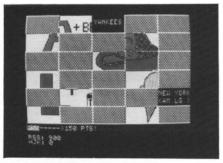


SPARE CHANGE.

Broderbund Software 17 Paul Dr. San Rafael, CA 94903

THE ARCADE MACHINE: The popular Apple arcade construction program is now available for the Atari as well. See CGW 3.1 page 32 for a review of TAM. As Broderbund did with the Apple version, they are sponsoring a contest for best design using TAM. Details are in the back of the instruction book. Deadline for entries is June 30, 1984. \$59.95.

SPARE CHANGE: The blerb on the box says "Warning...get ready to laugh. There are Zerks on the loose!" And laugh you will, Broderbund again shows us delightful animation. SC is an arcade game in which you attempt to stop the Zerks (Ozzie and Zeke by name) from pilfering tokens. Although the game design itself is a bit weak, the graphics and animation make SC a nice showcase game. Apple (Atari and C-64 should be out soon) \$34.95.



MATCH-WITS

CBS Software Greenwich, CT 06836

MATCH-WITS: A nice looking "Concentration" style game in which you attempt to match pairs of a rebus. Six pre-programmed categories: words, sports, famous people, multiplication, cities, and animals come with the game. You must match two facts about a thing. This makes MW educational. You don't match symbols, you match facts. The game includes a utility so that you can construct your own games. Apple and IBMpc, \$29.95.

MURDER BY THE DOZEN: A logic and deduction game playable by up to four people (either cooperatively or competitively). Players work on any of the 12 cases, making use of the dossier, a map, and a clue book. Apple, IBMpc, C-64. \$34.95.

SUCCESS WITH MATH: A series of math review programs which help students to learn and practice math skills at their own pace. The four programs are: ADDITION/ SUBTRACTION (grades 1-4); MULTIPLI-



MURDER BY THE DOZEN

CATION/DIVISION (grades 2-8); LINEAR EQUATIONS (grades 7-11); and QUAD-RATIC EQUATIONS (grades 9-12). Each program takes the student step-by-step through arithmetic and algebra concepts which are known stumbling blocks to young readers. Programs are \$24.95 (disk) or \$19.95 (tape) each. Available for Apple, Atari, and C-64.

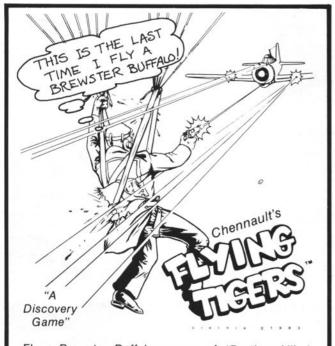
Datamost 8943 Fullbright Ave. Chatsworth, CA 91311-2750

ARGOS: Apple arcade game with three phases. In phase one (pictured) you attempt to thwart a space borne invasion. In the second phase you anti-jet guns as you defend Los Angeles. It doesn't look like L.A. (perhaps it's the lack of smog?). In the third phase you control a tank on a city street as you blast missiles, bombs, spaceships, and parachutists. \$34.95.

CONQUERING WORLDS: A strategy/arcade game for up to 4 players, in CW you must take over the planets of star-systems (as many as 32) by movement within the



ARGOS



Fly a Brewster Buffalo or any of 17 other Allied fighters of the late 30's and early 40's in this **Historically Accurate, Real-Time Animated-Action Air Combat Simulator.** Disk for 48K Apple II with Autostart ROM, \$29.95 at your local game store, or C.O.D. from:

DISCOVERY GAMES 936 West Highway 36 • St. Paul, MN 55113

ZORK

Master the worlds of ZORK, INFIDEL, WITNESS, DEADLINE, SUSPENDED, ENCHANTER, STARCROSS, PLANET-FALL, and the ORIGINAL ADVENTURE with our maps and hint books. We won't spoil your fun. Each book comes with multi-level hints and a game map. AII 3 ZORKS including ADVENTURE for \$16, or send \$5.95 for individual games, or get two games for \$8.95.

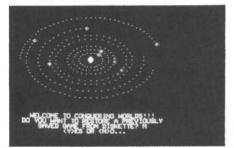
Send check or money order to: BROKEN TIMBER PRESS 1625 W. 39th Avenue Kansas City, KS 66103 913-722-2464 systems and warp movement between them. You begin with knowledge of only your stellar system and its planets from which you must discover the galactic direction of other star systems and, if occupied, fight for their control. Combat, normally done by arcade action, may be decided by the computer. And, to make things a bit more interesting, each turn has a time limit. Apple II, \$29.95.

ROUND ABOUT: An Apple arcade game in which shapes zoom and zig zag around a playing field as you shot them. \$29.95.

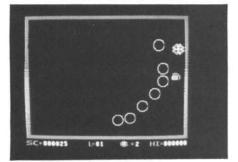
THE BILESTOAD: Check this one out. A very nice looking strategy/adventure game in which you compete in a "malevolent sort of amusement park". You control armored knights as you make your way around a variety of "islands", actually battlefields. The overhead view displays an impressive view of the contestants as they fight with shield and axe. Beyond the outstanding graphics, the game allows for a variety of strategies. The rule book calls TB a "nonstructured" game. A variety of elements called "shyben" allow various modes of travel around the battlefield. We like it. Apple II, \$39.95.

Electronic Arts 2755 Campus Dr. San Mateo, CA 94403

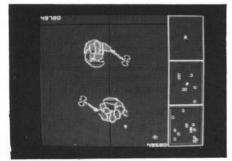
MURDER ON THE ZINDERNEUF: A detective game which is playable again and again. The characters are the same, but the motives, relationships, victims, and murderers change. You can play the role of any one of eight thinly disguised renowned



CONQUERING WORLDS



ROUND ABOUT



THE BILESTOAD

detectives (e.g. Inspector Klutzeau, Lieutenant Cincinnato, Achille Merlot, etc.). You only have 12 hours to solve the crime. "To accomplish your goal you can follow (shadow) suspects, search rooms for clues, and interrogate passengers in whatever style you wish, from soft and seductive to hard and mean." Atari and C-64. \$40.00.

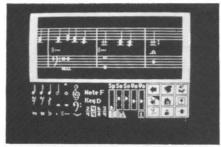
MUSIC CONSTRUCTION SET: Utilizing increasingly popular icons, MCS allows you to compose music on your Apple II. Sweet Micro System's MOCKINGBOARD is highly recommended. After seeing this program in action musicians will be pricing Apples in their local computer stores.

Flower Soft 564 Tara Ct. Manteca, CA 95336 (209) 239-2116

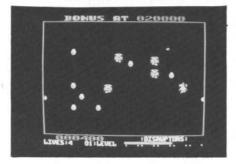
> **BANNER-RAMA:** A program that prints banners for parties, bulletin boards, games, etc. Two letter sizes and four formats give you flexibility in designing your banner. Easy to use and useful. Supports most printers (default setting is for MX-80/100). Apple II. \$29.95.

H.A.L. Labs 4074 Midland Rd. Suite 23 Riverside, CA 92505

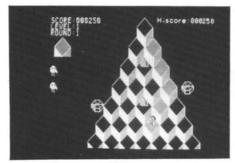
> VINDICATOR: Apple arcade game which employs a variety of enemies (some similar to coin-op favorites) which attempt to despoil the environment you are charged to protect. \$34.95.



MUSIC CONSTRUCTION



VINDICATOR



CUBIT

Micromax Systems Inc. 6868 Nancy Ridge Dr. San Diego, CA 92121

> **CUBIT:** Nice looking arcade game that is much like the coin-op game Q*BERT. Four levels with each level having four rounds make up the game as you go around jumping on cubes to change them to the correct color. Apple II. No price listed.

MicroProse Software 1 Caribou Ct., Parkton, MD 21102 301-667-1151

> FLOYD OF THE JUNGLE: Arcade game in which 1 to 4 players (computer can control up to three positions) race through the jungle. Perils include lions, tigers, elephants, and pygmies with poison darts. The emphasis is on the race. Could be a good party game. Atari (48K disk or 32K tape) and C-64 (disk or tape). \$29.95.

NATO COMMANDER: Scrolling, real-time wargame that simulates a Soviet Bloc invasion of Europe. A one player game, NATO-C requires you to assume command of the NATO armies. Five scenarios and four skill levels. Review coming. Early Atari versions had the penchant of dropping the black color on the screen (especially annoying since roads, towns, and West German units are black in color). This problem has been cleared up with version 2. If you have an early version of the game that exhibits this problem, MicroProse will replace your disk. Contact them for details. Atari and C-64 (disk or cassette). \$34.95.



FLOYD OF THE JUNGLE



NATO COMMANDER



THE ALPINE ENCOUNTER

Ibid Inc. 179 Allyn St. Suite 607 Hartford, CT 06103

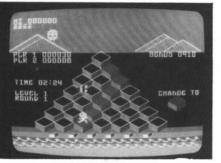
> THE ALPINE ENCOUNTER: TAE is the first in a series of adventure games in which players battle VODAC, an evil organization bent on world conquest. Combining the full parser type graphic adventure game with arcade sequences (snow skiing) you work your way through 93 scenes and interact with 28 personalities. There are many possible paths to the ultimate outcome. In October the company says that "48 conclusions have been discovered. Many more are possible." Apple now, C-64, IBMpc, and Atari to follow. \$59.95.

Master Control Software Inc. P.O. Box 26714 Salt Lake City

> **PHARAOH'S PYRAMID:** A Q*Bert style game with an attractive fiction. You start on level one as a slave and work your way up, using the gifts of Isis, fighting the plagues of Moses, building a pyramid, and finally becoming the Pharaoh of Egypt. Apple now, C-64, Atari, and IBMpc coming.

Nexa Corp. P.O. Box 26468 San Francisco, CA 94126-6488

> **CYBERNATION:** A strategy/arcade war game in which you must disengage warheads in an enemy held base. Three distinct mission levels. As with other Nexa products, the perspective graphics are well done. Apple. \$40.00.



PHARAOH'S PYRAMID





CAVERNS OF CALLISTO

Origin Systems Inc. P.O. Box 58009 Houston, TX 77258

> CAVERNS OF CALLISTO: An arcade game in which you enter an alien cavern (actually an abandoned mine) in search of purloined parts of your spacecraft. A variety of items must be found in order to complete your task. No mapping is necessary, as one comes with the game. Apple II.

Reston Publishing Co. 11480 Sunset Hills Rd. Reston, VA 22090

> MOVIEMAKER: Here something new that will appeal to many computer gamers. MM allows the gamer to become a director! The user devises the action, sets the scene, creates the actors, and plays back the completed computer "movie". No programming ability is needed as you create mini-movies and cartoons. Atari (disk), \$60.00. Apple disk and Atari cartridge expected out before Christmas.

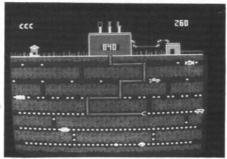
> **SPACE KNIGHTS:** Another "different product from Reston is SK, a science fiction novel plus disk with game programs based on the novel. Atari. Book and disk. \$24.95.

Sierra On-Line Sierra On-Line Building Coarsegold, CA 93614

B.C.'S QUEST FOR TIRES: An entertaining arcade game (especially if you like the cartoon strip B.C.) in which you, as Thor, must rescue the Cute Chick. Other charac-



QUEST FOR TIRES





CAPTURE THE FLAG

ters involved in the game are Fat Broad, Dooky Bird, turtles, and a dinosaur. Atari.

LEARNING WITH LEEPER: A series of 4 games for pre-schoolers: Dog Count, Balloon Pop, Screen Painting, Leap Frog. Atari ROM cartridge received.

OIL'S WELL: Arcade game in which pacman, uh, I mean, a drill bit gobbles oil pellets while avoiding oozies and land mines. Although it has some maze-chase elements, it is essentially different in that you must lay pipe, and remove pipe so as to get the most oil without having your pipe destroyed by the baddies. Atari.

Sirius Software 10364 Rockingham Dr. Sacramento, CA 95827

> **CAPTURE THE FLAG:** Remember WAYOUT, Sirius' game with breathtaking 3-D graphics? Now they have taken Wayout and made it more competitive. CTF is, essentially Wayout for two people playing competitively. One player attempts to capture the flag, while the other player seeks to capture the other player. The computer can play either position if you wish. Atari.

> **GRUDS IN SPACE:** A graphic adventure game set in space. Your objective is to deliver a rare fuel to a stranded ship on Pluto. This will involve teleporting to various planets and solving various puzzles. Apple, Atari.

> > Continued on p. 45



GRUDS IN SPACE

COMPUTER DIPLOMACY

Some of you have read about a game called COMPUTER DIPLOMACY that has been expected from Avalon Hill Microcomputer Games for some time now. The game has been delayed due, as we are told, to the fact that AH is negotiating the sale of the game to a larger company.

DiplomacyTM is a board game for seven players based on Europe just prior to WWI. It is a game of negotiation, psychology, alliances, and trechery. While thousands play the board game around the world, there is a sizable number who play the game by mail (PBM) using a gamemaster to run the game. Whatever becomes of CD, there is, and has been for almost a year, an exciting computer related activity taking place in the Diplomacy hobby.

Russell Sipe, editor of Computer Gaming World, has taken PBM Diplomacy into the computer age. Through the vehicle of THE ARM-CHAIR DIPLOMAT, Sipe's online Diplomacy newsletter, Diplomacy games are now being played by ELECTRONIC mail (PBEM). Games are being run on both Compuserve and The Source.

If you have a Compuserve or Source account and like to play Diplomacy (or want to learn) contact Russell. On Compuserve he can be reached by email or by message on GameSig (72435,1434). On The Source he can be reached by smail (TCL920).

THIRD ANNUAL CGW ROBOTWAR TOURNAMENT

MUSE SOFTWARE and COMPUTER GAMING WORLD proudly announce the THIRD ANNUAL CGW ROBOTWAR TOURNAMENT.

Looking for some better competition for your ROBOTWAR[™] robot? Here is the perfect place to try him (her?) out. Put up your contender. Does he have what it takes to be a champion? You'll never know unless you "go for it!" ROBOTWAR fans are invited to enter their best Robotwar design into our national competition. Can you beat the likes of NORDEN + (winner of the first annual tourney) or DRAGON (winner of second tourney)? You will never know unless you try. And look what you can win! The winner of the tournament will receive a trophy and a check for \$100.00 from MUSE SOFTWARE!

All entrants will receive a free Robotwar T-Shirt as well as a discount coupon towards the purchase of ROBOTWAR DATA DISK #2 (containing all the entrants; available after the tournament).

Contest Rules

1. Send your Robotwar program (source and object code) on a diskette to: COMPUTER GAMING WORLD

ROBOTWAR TOURNEY P.O. BOX 4566

ANAHEIM, CA 92803-4566

- 2. Include a brief description of your robot. What is it designed to do?
- 3. Only one submission per contestant.
- 4. Include your name, address and phone number with your submission. If you wish your diskette returned, also include return postage.
- 5. CGW reserves the right to reproduce entries in disk form (with credits) in ROBOTWAR DATA DISK #2.
- 6. CGW reserves the right to publish the source code of the winning robot in the pages of the magazine. The winner will be invited to write an article on his/her design.
- 7. Include T-Shirt size (S, M, L, XL).
- 8. Entries must be received by Jan. 31, 1984. Winner will be announced in the April 1984 issue of CGW. A round robin style tournament will be used to determine the winner.

NEW FROM SIMULATIONS CANADA

 FALL GELB, A Computer Game Of The Fall Of France,

 1940.
 Image: Computer Game Of The Fall Of France,

War with Germany came suddenly in 1939. The sweep of the Wehrmacht across Poland gave the world its first taste of the new form of high speed warfare; the Blitzkrieg. And then only quiet. The nations of Europe were in arms and on their borders. The miltary machines were in motion, ordering weapons and mobilizing men. But a stillness covered the continent. Until May, 1940.

FALL GELB places you in command of the forces of England, Belguim, The Netherlands, and France, Germany when the storm breaks. Your computer acts as your chief of staff in this highly realist strategic Level game of the invasion of France. It takes takes your orders, keeps you infomed of the status of each of your corps, and routes your instructions to specific units. Intelligence on opposing unit locations and strengths are compiled for vour examination and available on request. Two maps of the area and playing pieces are provided to assist in formulating strategic plans and tracking operational results. FG may be played by two players or against The game was designed by L. Howie, the computer. with art by J. Kula. For the Apple II, II+, & IIe with at Least 48K and a disk drive.

GREY SEAS, GREY SKYS, A Computer Game Of Modern Naval Combat.

The world of the modern naval officer has become very complex. A captain no longer stands on his bridge to view the approach of his enemies and see the effects of his fire. The men that command modern ships do so from deep inside the hull in a room where all the electronic systems that detect, track, and attack come together, the Combat Information Center. GS,GS puts you in that room.

GREY SEAS, GREY SKYS is THE representation of modern naval combat at the tactical level. It covers submarines, surface ships, and aircraft in a highly realistic and accurate manner. Your computer takes the place of the electronic equipment of up to ten ships and submarines in a 10,000 square mile section of ocean. A number of pre-set scnarios are included, as well as the option for players to create their own scenarios from the naval units of any of the world's major powers. Also included are 2 maps and playing pieces for use in producing manual tracking when results are insufficient for a computer search derived solution. Play may be with two players or The game was designed by W. against the computer. Nichols, with art by J. Kula. For the Apple II, II+, & IIe with at least 48K and a disk drive.

ORDERING INFORMATION: Our computer games are \$59.95 each for Americans. For Canadians the price is \$65.95 each. For purchasers outside North America the cost is \$64.95 each. Please specify the game title(s) desired on a separate sheet and send it, along with your payment, to our address below. Purchasers outside Canada should send payment in U.S. funds (meaning Americans can just write a cheque). Nova Scotia residents must add an extra 10% of the total for Provincial tax.

SIMULATIONS CANADA, P.O. Box 452, Bridgewater, Nova Scotia, Canada, B4V 2X6.

Doyou have what it takes to survive the Devil's Dungeon? Or escape

Stimulating Simulations

(Engel) Devil's Dungeon: Mindboggling treasures await you-if you can find your way through the lost caverns. Watch out for the bottomless pits and volcanic tremors-and the horrible monsters and demons. Diamond Thief: The museum . . . the priceless diamond ... five suspects ... clues ... catch the thief ... if you can. Forest Fire: A lightning bolt has ignited a huge forest fire. You have to save the surrounding forests and communities. Is there enough time? Contains nine other unique simulations such as piloting a space ship, managing a corporation, playing soccer, and more. Versions Available: MicrosoftTM, #5170; Atari[®] #5197; VICTM #5173. AppleTM #6317; Commodore 64TM #5201, TI-99/4ATM #6404. \$7.50 each

the uncharted jungle? Can you race in the Grand Prix? Or catch the daring jewel thief? How about trying the Rubik's Cube? Chills and challenges await you in Hayden's world of thrilling adventures, exciting chases, fastpaced action battles, and brainteasing puzzles.

Become part of our exciting world today!

VICTM Games (Hampshire) Contains 36 exciting game programs for the VIC-20. Arcade style and strategy games provide the thrills-driving skills are tested in the Grand Prix, nerve is tested in a field of landmines, cunning and daring is required to escape the jungle, patience is the key to solving Rubik's Cube. #1060, \$12.95

and Graphics (Swan) Here are 22 more programs for video enjoyment-control space traffic at a busy moonport, compete in "light" bike races, and more. Also generates exciting displays of moving light, and the graphics editor allows you to customdesign character sets, save and change pictures up to full screen, and print a hard copy of the finished product on most printers. #6271, \$15.95

Computer Bridge (Throop) A must for anyone interested in bridge programming. Shows how it can be implemented on a microcomputer. Bridge programs such as Bridge Challenger, Bridge 2.0, Goren Bridgemaster, and Bridge Tutor are evaluated for strengths and weaknesses. Sample hands illustrate bidding and playing options. #6253, \$9.95

Mail to: Dept. GWN3 • Hayden Book Company, Inc. 10 Mulholland Drive • Hasbrouck Heights, NJ 07604

Please send me the book(s) indicated below by code number. If I am not completely satisfied, I may return the book(s) undamaged within 10 days for a complete refund. I am enclosing \$2.00 to cover postage and handling. □ Enclosed is my check or money order. Bill my □ Visa □ MasterCard

Apple and TI are trademarks of Apple Com-puter, Inc. and Texas Instruments, respectively. Commodore 64 and VIC are trademarks of Commodore Business Machines, Inc. Atari is a registered trademark of Atari, Inc. Microsoft is a trademark of Microsoft Corp. None is affiliated with Hayden Book Company, Inc.

Address		
City	State	Zip
Visa/MasterCard #	Exp	

Hayden

Order by Phone 1-800-631-0856

operator GWN3 In NJ (201) 843-0550, Book Sales Dept.

Residents of NJ and CA must add sales tax. Prices subject to change

LETTERS

COMBAT LEADER

Dear Editor,

The computer in *Combat Leader* (CL) is a tough opponent, but your readers should be able to beat it with a few simple tricks:

1) If your tanks can reach good concealed positions with clear ground in front of them, they should stop and wait for the enemy tanks. (The computer usually begins with several feints by a few tanks or armored personnel carriers (APC's). Then the computer makes the main advance with its tanks.)

2) The tanks are the most valuable units in this game. You should not risk losing them in a blind advance too far northward. Move your tanks into a protected position in the southern half of the map with clear fields northward so that they can hopefully bushwhack the enemy tanks. Depressions give the best

	A Dest		ba IM
APPLE, ATAR ADVENTURE INTERNATION/ PREPNE II STONE OF SISYPHUS AIRLINE SAIGON: FINAL DAY AVALON HILL TAC	L 88 (AL 20.97 20.97 14.97 14.97 14.97 24.00	STRATEGIC SIMULATIONS EAGLES BROADSIDES KNIGHTS OF THE DESERT GEOPOLITIQUE RINGSIDE SEAT MORESENAND COLE	23.97 23.97 23.97 23.97 23.97 23.97 23.97 23.97
TELENGARD PARIS IN DANGER T.G.I.F. FOOTBALL STRATEGY EPYX	16.80 21.00 15.60 15.60	PROFESSIONAL GOLF COSMIC BALANCE I & II COMPUTER BASEBALL R.D.F. 1985 NORTH ATLANTIC 86	23.97 23.97 23.97 20.97 35.97
TEMPLE OF APSHAI OIL BARONS HELLFIRE WARRIOR DRAGON RIDERS OF PERN	23.97 33.00 23.97 23.97	EDU-WARE INTERSTELLAR SHARKS PRISONER II WORLD BUILDERS	19.77 19.77 19.77
FOR FREE INFORMATIO AND M MARCO POLO, 468	-3	RE TITLES IN ST 31-913 PRODUCT LISTING, COMF IS FORM TO: d E. Ave., Tulsa, OK 741 ATARI () COMMORDOR	5 1
NAME:			
ADDRESS:			
Visa or Mastercard. Please	Add \$5.	ZIP:	Card

cover. You will have to enter repetitive orders to squeeze most of a tank platoon into a single depression. A few trees in front of the depression will provide additional cover.

3) Keep all of your tank platoons close together, about 100 yards apart. This will help them to combine firepower against any targets within range.

4) APC's are too weak to trade punches with tanks. You should use your APC's to drop infantry at concealed positions, then retreat the APC's. If spotted, you can use smoke 100 yards out to conceal them.

5) Dismount your mortars in the rear toward the middle. They should shoot first at APC's and infantry, then at tanks. If they can't see targets, they should blindly lob shells at suspected enemy positions, such as reverse slopes of hills, possible routes of advance, and enemy smoke screens.

6) Antitank gun squads should dismount as far northward as possible. and in the suspected path of the enemy advance. Each should be concealed so that enemy armor will not see it until after they get within the killing range of its guns, which is less than 200 yards. A good location would be a depression in the middle or south part of a large woods. The squad's field of fire should cover the expected approach route for the enemy, and the unit should occassionally "look" in other directions. It is very embarassing to only look northward, and then be steamrollered by enemy tanks approaching from the south.

7) You should not risk placing rifle and machine gun squads too far forward. Do not bunch these squads too close together, or you risk losing all your eggs in one basket. With good fields of fire, they can serve as spotters for your mortars. You might try to place one rifle squad in a depression on a hilltop to get maximum visibility. The fields of fire of your units should overlap so that the enemy tanks cannot sneak behind your positions without being spotted.

8) In the objective scenario, you will eventually have to seize the objective. But it is usually not safe to do this until after you have destroyed the enemy tanks. On a map with lots of clear terrain, you can advance more boldly than in hills or forests you might risk a tank dash northward to find and destroy the enemy mortars.

9) Patrols are not a good idea, because they frequently are killed shortly after they find the enemy tanks.

10)You should not give up your company command in order to control individual units. Your "robot" subcommanders can probably handle them more efficiently. Also, if you give up the company command, the computer may advance your other troops to exposed positions.

The main objective in this game should be to position your tanks to fire from depressions against enemy tanks in clear terrain. If you can destroy his tanks, you should have no problem hunting down his remaining APC's and infantry.

Good luck, and good bushwacking! Floyd Mathews Pasadena, CA

MORE C64 PROBLEMS

Dear Editor,

It was quite refreshing to read Jon Freeman's column concerning the true state of the Commodore C-64 personal computer, especially after all the nonsense published about it.

As a professional programmer, I bought the 64 because of my budget, and because I wanted a machine to do some off-hand programming on. Unfortunately, I got the usual misinformation and got caught with a less than desirable machine. Programming in assembly doesn't usually phase me, but the operating system (the KERNAL) for the C-64 is such a mess, that it's just too much for me.

I hung on to the computer, however, because I hoped that there would soon be available either another language for the C-64, or an extension of the BASIC to get easily at the graphics and other features of the machine. You see, I think the C-64 has what it takes internally, but that the software wasn't sophisticated enough to take advantage of it. But, alas, deep down I now know that even if said programs were to become available for the C-64, that they will take away room from RAM, and that they'll take their sweet time in coming. As it is, various magazines have already published articles about "Simon's BASIC" an extension of the on-board C-64 BASIC that will add 144 commands to the machine at a cost of (surprise!) 8K being taken away from the BASIC. But where is the cartridge or disk? Nowhere that I can see.

In short, I think that the (hopefully) upcoming extended BASIC and other software may save the C-64 (at least until they change the drives, those fools), but I doubt you'll see a lot of software utilizing that extended BASIC or any other language. So, Jon has my promise to spread the word that "the emperor has no clothes".

> David Nakamoto San Gabriel, CA

C64 DEFENDED

Dear Editor,

If you check your records, I think

you'll find that I'm one of your best subscribers — with you since volume 2, number 1. In all that time I haven't found it necessary to do anything but sit back and enjoy the magazine. Sure, I've submitted a few Reader Input Devices, but I've never felt I had to stand up and be heard before.

But this time I had to speak up. Tell Jon Freeman to put his hatchet away and take a fair look at the Commodore 64.

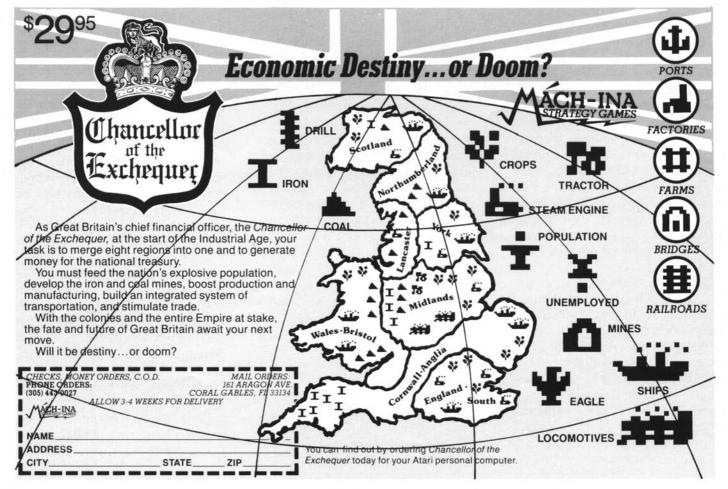
I was one of the first people in the country to actually buy a Commodore 64, (July 1982). Two months later I was probably the first person in Phoenix to get the Vic-1541 disk drive to use with it. I've had the machine a long time — I know its good and bad points.

Let me deal with Jon's objections first, then I'll try to make a fairer criticism of the machine.

In comparing the C-64 to other computers like the Apple II, Atari, TI 99/4; byte for byte the C-64 gives you more than any of them. Sure, with the operating system unmodified, you only get 39K of usable memory in RAM. That's 1K more than the Atari gives you, and BASIC is in the machine so you don't have to lay out another \$50 for the BASIC cartridge. Textural display on the C-64 may not be the finest, but I've compared my home color tv program for program with Ataris, Apples, and TI's. Jumpman, Frogger, Monopoly, you name it, looks as good on the C-64 as on any of the others. RF interference seems to vary a lot from machine to machine - I've had almost none with mine, and I haven't taken any special precautions. Sure, the light blue on dark blue at the beginning when you turn the machine on is hard to see. One key stroke, control 2, changes the cursor color to white, and with that combination the definition is outstanding - very easy to read, and easy on the eyes.

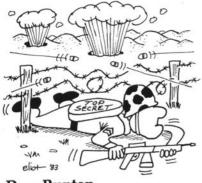
Out of the 16 colors, I'm not too fond of the three shades of gray, but the black and white are absolutely necessary. Considering that most games use four to six colors maximum, the 11 colors that are real

Continued on p. 50



DISPATCHES

Insights From the Strategy Game Design Front



Dan Bunten of Ozark Softscape

Can you imagine an arcade game without graphics or animation? How would a "text version" of "Pac Man" strike you? Such a game would never have caught on!

All coin-operated arcade games use an animated graphics display to convey information about the status of the game to the player. As we discussed last time, all such games also use a joystick (or another similar device) for player input. Conventional wisdom in the computer field currently requires "a full-stroke typewriter-style keyboard" with "an 80 character per line upper and lower case text display" on all serious home computers. This doesn't impress the arcade makers. They use joysticks and graphics displays because such devices are much more "user friendly". Can you imagine all the words needed to describe your current position in the maze during a "Pac-Man" game? "You are approaching an intersection. To your left is a long hallway. To your right . . ."

Cognitive scientists who study how our brains function have obtained some answers to why "a picture is worth a thousand words". According to them, different parts of the brain are used to interpret text (symbolic language) than the areas used to examine graphics (images). Text is made up of symbols (characters) which are translated into elements (words) which are then combined to create concepts and ideas. It isn't until our brains have done a lot of processing that we are able to grasp the essential thing being communicated. Graphics, on the other hand, convey their whole message *at once*, allowing the brain to then dissect the picture into elements and symbols as needed. The power of graphic communication is well known and has led to a great increase in the use of charts and graphs in many fields. A graph allows the viewer to "get an overview" or "focus in on important elements" or "look at things with a different perspective".

Much of the data stored in your brain is in a graphic form. For instance, remember the house where you lived previous to the one you live in now. How many windows did that house have? Immediately your brain recalls a moving "picture" of you walking through that house and counting windows. The information is stored in a "visual" form that can be analyzed for any number of things such as: the number of closets, the location of the refrigerator, and how the rooms were connected. To retain such data as discrete groups of "textlike" pieces would be very awkward. I wouldn't contend that arcade game designers analyzed all this before they decided to use graphics instead of text. They just knew what "felt right" to the average game player.

Color graphics communicate more easily and quickly than text, but animation is what really made arcade games popular! To a generation raised on a diet of Saturday morning cartoons, nothing could be more appropriate than animated characters and objects. Even as far back as "Space Invaders", it was obvious that the cute, marching aliens were a big part of its success. The "state of the art" has advanced considerably since then. Games such as "Q-Bert" and "Popeye" are cartoons whose outcomes are controlled by the player.

Animation has other advantages. Our brains are much better at discovering things that move in relation to other things. We focus in on patterns of motion quickly. We can determine the trajectory and speed of an object much faster than we can describe it in words. Thus, a graphic display is essentially "dead" until it is animated (pun intended).

So, if strategy games are to achieve

the potential appeal I think they could have, designers must follow the example of the arcades. Use animated color graphics. There are a number of good examples on the market of graphic strategy games. I hope we have seen the last of the text wargames. People like Chris Crawford and Roger Keating have made the "separate boards and counters" for computer games obsolete. We may even see the end of "semi-animated" battles if Combat Leader and Broadsides are any indication. The success of various hi-res adventures indicate the popular preference for pictures (even if they are static). Better still, games like Castle Wolfenstein and Aztec show that players will not require as many complex options if you give them an interesting character to animate.

There are many good examples of what can be done with graphics in strategy games, but there are problems. Designing reasonably attractive visuals for all the options in your game can be very difficult. A good graphic strategy game needs the quality of arcade animation but with a great deal more options. Thus, the designer may end up producing the equivalent of three or four arcade games in one strategy game. The performance required by animation routines almost always requires that you write in machine language. This is a whole lot slower to write and debug than some of the "higher" languages. Although a picture may be worth a thousand words, it may take over 4000 bytes to store it in the computer. (No one knows how our brains store pictures but I'm sure it isn't in the sloppy form that we store bit pattern drawings in a computer).

The final disadvantage to including graphics in strategy games is that you are putting yourself up against the best that arcade designers can do. Besides a simple mechanic for how the joystick works, all that arcade designers worry about is graphic gimmics. So they are good! But a strategy game designer has to worry about all the other elements that make up a game. You have to be sure that you keep track of all the pieces that make up the players' score, that

Continued on p. 48



Back for more, I see! Well, step right in, plenty of room tonight; everyone's out doing their holiday shopping. Take a seat by the fire while Fred pours out your usual, and we'll get started on Zork II. Once again, it's off to the Great Underground Empire! This time, however, it won't be quite so easy. For one thing, there's much more territory to cover, and for another, there's the Wizard of Frobozz.

This delightful (?) person will inevitably appear at the most inconvenient moment, and zap you with a spell. These spells all begin with the letter "F": Freeze, float, fall, fence, fantasize, ferment, etc. Some, such as float and fence, are merely annoyances, but others, such as fall, could cause you to end up dead. Therefore, it's best to save the game often, and restore any time the Wizard appears and hits you with a spell.

You start inside the barrow, with your old friends, the Elvish sword and the brass lantern. Picking those up, you move on through the underground area until you come to the Dark Tunnel, where the path forks. One leads to a stream, the other to a garden area with a Gazebo. While investigating the Gazebo, you may catch a glimpse of a Unicorn with a ribbon and key around its neck. Whatever you do, he will always be out of reach, so you might as well leave him alone. Later, someone will help you get the key from the Unicorn. For now, just make sure you take everything off the table, because all those items will come in handy in the future.

Now, you might as well make your way through the Topiary and into the Carousel Room. No one likes the Carousel Room, and the reason is obvious: no matter what direction you try to move, you will usually end up going in a different one. The room spins around, you see. So, you may want to go West and find you've gone Southeast instead.

Of course, there's a way to turn it off, but you'll have to get past the Riddle Room and into the Circular Room for that. The Riddle Room is well-named; you will have to answer a riddle to get the door open. Actually, the answer isn't all that difficult; think about being thirsty. And, as an added bonus, the answer to the riddle is also a clue to the Circular Room.

Because you'll have to do the right thing in the Circular Room to get to another set of rooms where you'll find some yummy tea cakes, a robot, and a red sphere, among other things. Examine those cakes carefully, and be sure to save the game before you do any experimenting! Also, remember to check out the pool in the Pool Room. The flask is important, but not in an obvious way...and make sure you have the cakes with you.

The red sphere in the Dingy Closet is very important. However, as you might guess from the sign on the wall, it's trapped. You will find the robot helpful here. Keep in mind that, just because you can't see him, doesn't mean he isn't there...or that he can't hear you. Don't forget to look into the sphere!

Once you have everything you need from this area, you can make your way back to the Carousel Room, which has become stationary. You can now use this room as a central point for your explorations, dropping off items and treasures that you don't need for the moment. In fact, you should leave all your treasures here, because you won't be needing them until the end of the game.

Now there are several ways to go, and for the most part, it doesn't matter which way you take first, so let's consider the Dreary Room. Peek in through the window, and the scene should look familiar. At least, it will if you have looked into the red sphere. Recall the scene from the sphere carefully, and then think about what you found back at the Gazebo. That should give you some ideas on how to open the door and get the blue sphere.

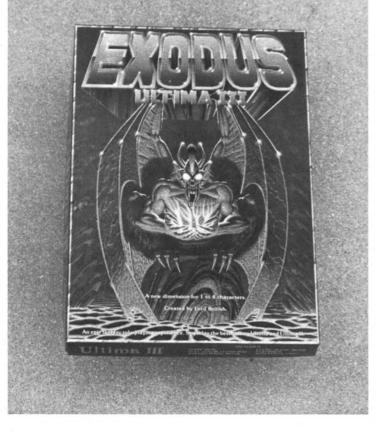
In your travels (and pretty close to the Dreary Room, too), you will come across a dragon. He is your typical fire-breathing dragon, so you want to be careful here. On the other hand, you don't want to be too careful, because you have to get rid of this scaly nuisance. You won't be able to do it where you find him; the trick is to get the dragon to follow you somewhere. Think about the opposite of fire, and you should be able to figure out where to go.

With the dragon out of the way, you can now investigate his lair. However, don't spend too much time on the trunk; the person in the room is more important at the moment. Keep her in view at all times, waiting when necessary. She will assist you in obtaining a small but important item. And remember to go back and check the dragon's trunk later on!

The bank is another interesting in place, and has one of the two most frustrating puzzles in the game. There are two treasures available here, a portrait in an office and some money in the vault. You will soon find that you can't leave the ordinary way with the portrait, and that there seems to be no way into the vault.

First, read the brochure on the floor of the Safe Depository. That should give you some idea of what's going on here. Then devote your attention to the curtain of blue light, for therein lies the method for obtaining the two treasures. Direction is very important here; keep in mind which way you are going, and also

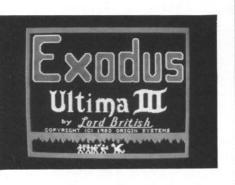
ULTIMA III: Review & Tips



Scorpia

NAME: TYPE: SYSTEM: FORMAT: **#PLAYERS: AUTHOR: PRICE:**

Ultima III Fantasy Adventure Apple II/ Disk 1 Lord British \$54.95 **PUBLISHER: Origin Systems** Houston, TX



Warrior, thief, cleric, mage. Together, they are exploring a heavilywooded part of the continent of Sosaria when suddenly . . . ORCS! Quickly, the warrior unlimbers her bow and sends an arrow flashing through the air, while the thief slings a rock, and the cleric, mace at the ready, begins a cautious advance.

Then the mage casts the mighty

spell REPOND, and 6 Orcs die on the spot. After that, the group makes short work of the remaining Orcs, and the thief turns his attention to the treasure chest. His clever fingers deftly avoid setting off the acid trap, and the group is richer by 56 gold pieces and a sword. Now, they will continue on their way, searching for the clues that will help them to defeat the dreaded Exodus.

Such is a typical episode from Ultima III. Lord British has done a superb job with this game, making it unquestionably the best in the series so far. The game has been streamlined AND expanded, graphics are better than ever, the gratuitous violence of Ultima II has been done away with, and, after having played the game through to its conclusion, I found no bugs in this version.

Those who are familiar with the previous Ultimas will have noticed that, unlike the earlier games, you can have more than one character in the game at the same time. In fact, you can form a party of up to four characters to bring into play, and they can be of any valid character type.

Not only can you have a regular group, you can have character classes hitherto unavailable, including multiclassed characters, such as Druids, who know both mage and cleric spells, Paladins, warriors who can cast cleric spells, Barbarians, who are fighters that also have some thief abilities, and Rangers, fighters who can cast both mage and cleric spells. However, there is a point beyond which the multi-classed character cannot advance, and only the "pure" mage or cleric will ever be able to cast the highest-level, and therefore most potent, spells.

This brings us to the combat sequences, which have been completely over-hauled, and make the game much more exciting. First, when combat begins, the scene changes to a close-up of your group and the monsters. Your party appears, all characters individually, at the bottom of the screen, and the monsters, also individually, at the top. So, in this example, we have the Fighter and Thief in front, with the Cleric and Mage behind them, and a group of 10 Orcs at the top of the screen. Perhaps fortunately, the good guys always get to go first!

There will always be some distance between the groups at the start, so it's wise to have distance weapons like bows and slings handy. You can aim

Retail

Your

APPLE II

APPLE II	Price	Price
AE (d)	\$ 34.95	\$23.00
Arcade Machine (d)	59.95	37.50
Aztec (d)	39.95	26.00
Beer Run (d)	29.95	21.00
Broadsides (d)	39.95	27.00
Canyon Climber	24.95	17.00
Cartels \$Cutthroats (d)	39.95	27.00
Cholplifter (d)	34.95	23.00
Crush, Crumble &		
Chomp (d)	30.00	21.00
Deadline (d)	49.95	31.00
Fathoms Forty (d)	24.95	17.00
Frogger (d)	34.95	23.00
Geopolitique 1990 (d)	39.95	27.00
Germany 1985 (d)	59.95	39.00
Knight of Diamonds (d)	34.95	23.00
S.E.U.I.S. (d)	39.95	27.00
Shattered Alliance (d)	59.95	39.00
Spare Change (d)	34.95	22.50
Starcross (d)	39.95	26.00
Suspended (d)	49.95	31.00
Temple of Apshai (d)	40.00	27.00
Time Zone (d)	99.95	63.00
Torpedo Fire (d)	59.95	39.00
Tubeway (d)	34.95	23.00
U-Boat Commander (d)	29.95	21.00
Ultima II (d)	59.95	37.00
Witness (d)	49.95	31.00
Wizard & the Princess (d)	32.95	21.50
Wizardry (d)	49.95	33.00
Zaxxon (d)	39.95	26.00
Zork I, II, or III (d)	39.95	26.00

in only the four directions North, South, East, and West, but the monsters can use the diagonals, which can make them deadly close-up, or if they happen to be dragons or other fire-breathing creatures who can toss fireballs at you from across the room.

On your turn, each member of the party gets a chance to act individually. So, a character can advance. retreat, cast a spell, attack, etc., on his turn. And this is all done in real-time; if you wait too long, the turn will pass to the next party member, or to the monsters. And the monsters will not be standing still; on their turn, they will advance towards the ... and if you happen to be up against spell-casting types, they will throw spells at you. There is no running away here; combat will continue until one side or the other is wiped out. If the monsters are destroyed, you usually get a treasure chest to open, but not always. For instance, fighting sea monsters will never get you a chest (makes sense: jellyfish don't usually haul such things around with them!). If one or more members happen to die, they will not be automatically

L

MAIL ORDERS TO: DATA CENTER 23441 Golden Springs Dr. Suite 267 Diamond Bar, CA 91765 (714) 595-8658

D=Disk, C=Cassette, T=Cartridge

For fastest service, send certified check or Money Order. Please allow 10 days for personal checks to clear. Please include \$2.00 postage and handling Continental U.S. All other orders \$5.50. Prices subject to change without notice.

SPECIFY COMPUTER TYPE

Write for **FREE** Catalog.

California Residents include 6.5% Sales Tax.

restored. Instead, you must get them resurrected. This can be done by a high-level cleric of your own, or you can buy a resurrection (if you have the money!) at one of the healing shops.

One of the more interesting aspects to combat is the fact that only the character striking the death blow will get experience for killing a monster. This means that the members will not all advance in level equally. Keep that in mind, as it may have an effect on your combat strategy.

Fighting in the dungeons is pretty much the same as out in the open, except that you don't know the monsters are there until they attack; there is no forewarning this time around. The only difference is that, while on the surface you are likely to run into any type of monster at any time, in dungeons the nastier ones tend to be found on the lowest levels only.

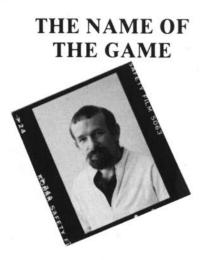
Speaking of dungeons, they're a lot smaller now; they only go down eight levels. They are smaller because, for the first time, you REALLY have to go into them, or you will not be able

Continued on p. 51

ATARI	Retail Price	Your Price
Armor Assault (d)	\$ 30.00	21.00
Canyon Climber (d or c)	24.95	17.00
Cosmic Balance I or II (d)	39.95	26.00
Crush, Crumble &		
Chomp (d or c)	30.00	21.00
Cytron Masters (d)	39.95	26.00
Deadline (d)	49.95	31.00
Fort Apocalypse (d or c)	34.95	23.00
Frogger (d or c)	34.95	22.50
Galactic Gladiators (d)	39.95	26.00
Jumpman (d or c)	40.00	27.00
Millionaire (d)	59.95	39.00
Shamus II (d or c)	34.95	23.00
Shattered Alliance (d)	39.95	26.00
Starcross (d)	39.95	25.00
Temple of Apshai (d or c)	40.00	27.00
Zaxxon (d or c)	39.95	25.00
Zork I, II or III (d)	39.95	25.00

COMMODORE 64

30.00	21.00
49.95	23.00
34.95	22.50
40.00	27.00
49.95	23.00
49.95	23.00
40.00	27.00
49.95	23.00
	49.95 34.95 40.00 49.95 49.95 40.00



Jon Freeman

In my first column a few issues ago I argued that plagiarism — loosely defined as ripping off someone else's ideas and passing them off as your own — should be just as much of a no-no in the field of computer games as it is elsewhere in the Real World. This time out I'd like to approach the topic from a few other angles: identifying plagiarism and related ripoffs; what protection copyright, trademark, and patent law does (and does not) offer; and what we can do about such matters.

A WORD OF WARNING: I am not a lawyer. I am not offering "legal advice," and my opinions should not be used as the basis for legal action. If you have serious questions about copyright law or your legal rights, consult your attorney.

That said, let's acknowledge the following: (a) You probably don't have an attorney. (b) Thanks to more firsthand experience and larger legal bills than I like to think about, unless you are a lawyer, I almost certainly know more - probably a lot more about this than you do. (c) The caveats in the previous paragraph go double for those without my expertise. Hasty and ill-considered advice to sue someone, for instance, could result in substantial liability. Sticking your foot in your mouth is always embarrassing; being presented with a bill for the meal might just ruin your whole day.

THE SHORT ARM OF THE LAW

The brunt of my attack in my initial column was directed at games that were, in my opinion, obviously, overtly, and in many cases explicitly rip-offs - PAC-MAN clones, for instance. I could name a dozen without taking a breath, but CGW wouldn't print their names, and you know them, anyway. They represent a clear case of moral and creative bankruptcy. If they also constitute legal plagiarism, as it appears, you might wonder how they can get away with it. So do I. There seem to be several "answers"; none of them entirely satisfactory. Some of these clones are put out by companies that may be viewed by the big boys as too small to bother with. In many cases (e.g., K.C. MUNCHKIN), something is being done, but the legal maneuvers take so long that everyone may have forgotten about it before the verdict is in.

Compounding the problem is an illogical attitude on the part of the courts. Examining the mess that is our current legal/political system would require at least a long book; let's note merely that the law looks backwards, not forwards. It does not apply general principles of justice to new situations as they develop; instead, the focus of the system is on closing the barn door after the horse is gone. Thus, you would logically conclude that if it is illegal to plagiarize a person's book, play, movie, song or board game, it would also be illegal to plagiarize a person's computer game. You would, but the courts wouldn't be sure until an example of that particular kind of plagiarism was brought to trial and a new precedent was set - a process that might take years.

(This nonsense is similarly responsible for the current confusion over videotaping — an issue resolved years ago in the exactly analogous area of audio taping.)

"TM" MEANS TOTAL MESS

While plagiarism, as legally defined, is still illegal, a variety of related practices, immoral or at least impolite, are still legal. For instance, were I to title a game *Crunch*, *Shatter and Munch*, you might view that act as a deplorable rip-off. It would not, however, be illegal. You can't copyright titles, and trademark protection does not extend to names that are similar in construction or intent but noticeably different. (Just think of all those colas.)

Trademark law is a joke — and getting more so all the time. Recent court cases have emphasized that a trademark (e.g., *Monopoly*) must be more connected to a company (Parker Brothers) than to the product it is identifying (the game of *Monopoly*). Thus, the more effective the trademark, the less legal it is, and any trademark worth keeping . . . you can't keep.

Adding to this colossal stupidity is the recent absurd habit of sticking "TM" on everything that moves. A little "TM" (or "tm") attached to a name or title does not mean that the name or title is, was, will be, or can possibly be a trademark. All it means, in theory, is that someone in the company connected to the product connected to the title (or, especially in the most egregious cases, a lawyer connected to the company . . . trying to justify his fees) is trying to assert, unilaterally, that the name/title is a trademark. In practice, the people involved may suspect or believe the name is not — and will not be — a valid trademark, but they hope the "tm" will discourage other people from using it. One assumes this latest strategy is the reason for attempting to claim a trademark on words like "Luke" and "hyperspace."

You cannot trademark a computer game — only its title — and you can't patent it, either. Simply put, you can patent hardware but not software: devices — things — but not text, titles, or ideas. Generally, patents touch the world of computer games only indirectly, such as the attempt by TI, in its relentless drive toward seppuku, to use a patented chip to keep other companies from writing software to support TI's hardware. YOU CAN'T PATENT

"POUGHKEEPSIE"

While people often confuse the elements of patent law with the protection afforded by copyright, they are quite different. Suppose, for instance, that two people — one in California and one in New York, say — are, separately and independently, busy inventing a widget: the same

Continued on p. 41

If you've ever dreamed of playing the pro-tour golf circuit on the world's finest courses... Or fantasized about getting ringside seats to all the championship fights in history... Or drooled over the prospect of managing the best pro baseball teams of all time...



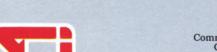
We've just answered all your hopes and wishes!

And SSI's 14-day "satisfaction or your money back" guarantee makes sure our games will help make your dreams of sports glory come true. In fact, the only way they won't is if you don't hurry to your nearest computer/software or game store and get these fine strategy sports games today.

For the APPLE[®] and COMMODORE 64[™]:

These games (\$39.95 each) come on mini floppy disk for the APPLE[®] II with Applesoft ROM Card, Apple II Plus, Apple IIe, or Apple III. Also on disk for the Commodore 64.[™]

Apple is a registered trademark of Apple Computer Inc.



Commodore 64 is a trademark of Commodore Electronics, Ltd.

STRATEGIC SIMULATIONS INC

If there are no convenient stores near you, VISA & Mastercard holders can order direct by calling **800-227-1617**, ext. 335 (toll free). In California, call 800-772-3545, ext. 335. To order by

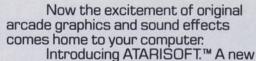
mail, send your check to: Strategic Simulations Inc, 883 Stierlin Road, Bldg. A-200, Mountain View, CA 94043. (California residents, add 6.5% sales tax.) Please specify computer format.

WRITE FOR A FREE COLOR CATALOG OF ALL OUR GAMES.

NOW YOUR COMPUTER FITS THE ORIGINAL ARCADE HITS.

27917.

64



source for computer software.

If you own a Commodore VIC 20 or 64, a Texas Instruments 99/4A, an IBM or an Apple II, you can play the original arcade hits.

DONKEY KONG by Nintendo, CENTIPEDE,™ PAC-MAN, DEFENDER, ROBOTRON: 2084, STARGATE and DIG DUG. (On the TI 99/4A you can also play Protector II, Shamus, Picnic Paranoia and Super Storm.)

So, start playing the original hits on your computer.

Only from ATARISOFT. <u>Some games also available on</u> <u>ColecoVision and Intellivision</u>.

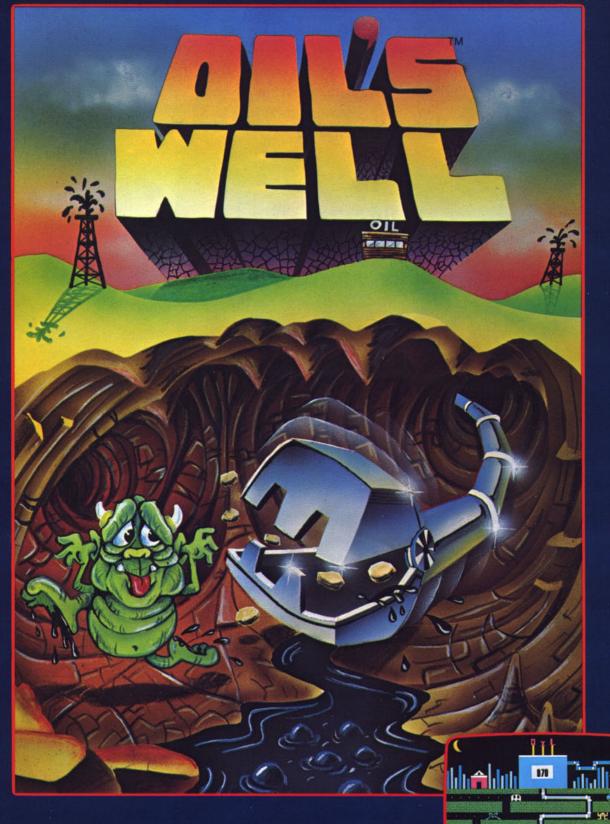


CDP arcCade nitcs.

DIJIJI

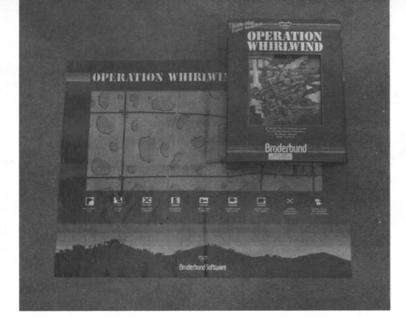
Name	
Address	
City	State Zip
Telephone	
PRODUCT OWNED: (Check	k one)
TI-99/4A	Commodore Vic 20
	Intellivision
IBM PC	
IBM PC	_

APPLE • ATARI • COM 64 • COLECO



"IT'S A GREAT GAME."





OPERATION WHIRLWIND

Mark J. Bausman

NAME:	Operation	
	Whirlwind	
TYPE:	Battalion level strategy	
SYSTEM:	Atari 400/800/1200 48k	
FORMAT:	Disk	
#PLAYERS:	1	it is it is a second
AUTHOR:	Roger Damon	A. COMMAND PHASE
PUBLISHER:		TURN 01

It is just before dawn on a cold morning in Northern France. The naked light bulb hanging from the ceiling of your command trailer casts a harsh shadow over the tactical map spread out before you. On the right edge of the map, fifteen kilometers from your present position, is the small French town that is your objective. At this time of year the two rivers you must cross will be swift and deep, and aerial reconnaissance has shown that all bridges over the rivers have been blown up. Your engineers will have their work cut out for them as they must rebuild those bridges or your heavy tanks will probably never be able to get across the rivers. Today, all elements of your command will be needed; the artillery to bombard from a distance; the recon units to sweep ahead and locate enemy positions; the light tanks to soften up enemy resistance; the heavy tanks to finish strong points; the infantry to mop up and

perform close assault on enemy infantry; and your own Batallion HQ to guide the whole affair. As the sun appears over the horizon you can hear the sounds of firing from both north and south of your location. Silently you hope that Battle Groups North and South will be able to do their jobs because you know that any enemy not destroyed by them will fall upon you and reinforce any resistance left in the city. If you have taken the city you know those same troops will fight to the end in order to retake the town. Your operations officer enters the trailer with news that all vehicles and men are prepared for jump off. The sun has fully risen and it is time to plug your joystick into port 1, hit the start key for a new game, and choose your level of difficulty for another bout with the computer in Broderbund's new game -OPERATION WHIRLWIND.

When I opened the box, the first thing I saw was a folded up poster

which turned out to be a full size multi-color map of the battle area. It showed all of the terrain features including clear, woods, roads, buildings, streams, and the city; and along the bottom was printed the unit symbols. I liked the game immediately when I saw I had seven unit symbols and the computer only had two. Little did I know the actual balance of power was stacked in the computer's favor.

In the Command Phase, you may scroll around the map and make your plans for movement. You may also order your units to dig in or become combat ready. Digging in will prevent you from moving, but you will still allow combat while giving depleted units the opportunity to build strength. Units are combat ready by default, unless they have been ordered to dig in, in which case they will stay dug in until you order them to be combat ready. A nice feature here is that dug in units will flash and are therefore easily seen. When you have finished looking at the map and ordering your units to dig in or become combat ready you will press the start key and go into the MOVE-MENT PHASE.

During movement phase you may move any or all of your units which are combat ready. To move a unit, you simply use the joystick to move the cursor over the unit you want to move and press the fire button. You will then see the unit's movement, Tired of high prices, poor service and hidden charges you get from other mail order companies . . .

Try RISING SUN SOFTWARE!

ATARI

ARTWORX

Strip Poker (D)				\$25.00
S.P. Data Disks	2		ļ	20.00

INFOCOM (disk only)

Deadline \$35.00

Enchanter 35.00

Planet Fall 35.00

Suspended 35.00

The Witness 35.00

Zork I 28.00

Zork II 28.00

INTELLIGENT STATEMENTS

LIGHTNING SOFTWARE

MUSE

ODESTA

Pro. Blackjack (D) \$49.00

Master Type (D) \$28.00

Castle Wolfenstein ... \$21.00

Chess (D) \$49.00

Checkers (D) 35.00

Odin (D) 35.00

Astrochase (R) \$35.00

Chess (R) 42.00

Frogger (R) 34.00

Q-Bert (R) 35.00

Tutankam (R) 35.00

Crossfire (R) \$25.00

Crossfire (D/C) 21.00

Frogger (D/C) 25.00

Mission Asteroid (D) 20.00

Sammy Lightfoot (R) ... 27.00

Ultima II (D) 42.00

Wiz & Princess (D) ... 25.00

35.00

Super Cobra (R)

SIERRA ON-LINE

PARKER BROTHERS

ATARI (ROM only)

Centipede	\$32.00
Defender	32.00
Dig Dug	32.00
Donkey Kong	35.00
Eastern Front	35.00
Galaxian	32.00
Missle Command	27.00
Ms. Pac-Man	35.00
Pac-Man	32.00
Qix	32.00
Space Invaders	27.00
Star Raiders	32.00

BIG FIVE

Miner 2049er (R) \$35.00

BRODERBUND

A.E. (D)	\$25.00
Arcade Machine (D)	42.00
Choplifter (D)	25.00
Choplifter (R)	32.00
Oper. Whirlwind (D)	25.00
Sea Fox (D)	21.00
Sea Fox (R)	28.00
Sky Blazer (D)	28.00

BUDGECO

Raster Blaster (D) \$21.00

DATAMOST

Airstrike (D/C)	\$28.00
Bilestoad (D)	28.00
Mating Zone (D)	25.00

ELECTRONIC ARTS

Archon (D)	\$28.00
Hard Hat Mack (D)	25.00
M.U.L.E. (D)	28.00
Murder on the	
Zinderneuf (D)	28.00
Pinball Construction	
Set (D)	28.00
Worms? (D)	25.00

EPYX

Jumpman (D)	\$28.00
Jumpman Jr. (D)	28.00
Gateway to Apshai	28.00
Pitstop	28.00

STRATEGIC SIMULATIONS Pattle for

Battle for	
Normandy (D/C)	\$28.00
Battle of	
Shiloh (D/C)	28.00
Comabt Leader (D/C)	28.00
Cosmic Balance (D/C) .	28.00
Cosmic Balance II	
(D/C)	28.00
Cytron Masters (D)	28.00
Galactic Gladiator (D)	28.00
Knights of the	
Desert (D/C)	28.00
Shattered Alliance (D) .	28.00
Tigers in the Snow	
(D/C)	28.00

SYNAPSE

Blue Max (D/C)	\$25.00
Dimension X (D/C)	25.00
t. Apocalypse (D/C)	25.00
Necromancer (D/C)	25.00
Pharoah's Curse (D/C)	25.00
Shadow World (D/C)	25.00
Shamus (D/C)	25.00
Shamus (R)	32.00
Shamus II (D/C)	25.00
Survivor (D/C)	25.00
Zepplin (D/C)	25.00

RISING SUN SOFTWARE 4200 PARK BLVD. **OAKLAND, CALIFORNIA 94602** (415) 482-3391

Ordering Information: We'll accept any form of payment—cash, personal check, money order, VISA/ MasterCard, or C.O.D. Send cash at your own risk. Add \$2.00 for UPS shipping; \$3.00 for Blue Label Air. California residents add applicable sales tax. ALL orders shipped same day received. If we are out of stock on a particular item we will include a special bonus with your order when shipped.



CALL TOLL FREE (800) 321-7770 (Outside California) (800) 321-7771 (Inside California)

VISA

ORIGIN SYSTEMS

Exodus: Ultima III . . . \$40.00

PENGUIN SOFTWARE

Coveted Mirror	\$15.00
Minit Man	15.00
Pensate	15.00
The Quest	15.00
Spy's Demise	
The Spy Strikes Back	15.00
Transylvania	15.00

SIERRA ON-LINE

Frogger	\$25.00
Dark Crystal	28.00
Sammy Lightfoot	21.00
Time Zone	70.00
Ultima II	42.00

SIRIUS

Critical Mass	\$28.00
Epoch	25.00
Gorgon	20.00
Gruds in Space	28.00

SIR-TECH

Wizardry	\$35.00
Knight of Diamonds	25.00
Legacy of Llylgamyn .	28.00

STRATEGIC SIMULATIONS

Broadsides	\$28.00
Computer Ambush	42.00
Computer Baseball	28.00
Cosmic Balance	
I & II ea	28.00
North Atlantic '86	42.00
Eagles	28.00
Fighter Command	42.00
Fortress	25.00
Geopolitique 1990	28.00
Germany 1985	42.00
Guadalcanal Campaign	42.00
Knights of the Desert .	28.00
Pro Golf Tour	28.00
RDF '85	25.00
Ringside Seat	28.00
Southern Command	42.00
Tigers in the Snow	28.00

SUB-LOGIC

Flight	Simulator	 \$35.00

ULTRASOFT

Mask of the Sun	\$28.00
Serpent's Star	28.00

APPLE

BRODERBUND

A.E. \$25.00

Arcade Machine 42.00

Choplifter 25.00

Gumball 21.00

Road Runner 25.00

Ultima \$25.00

Aztec \$25.00

Bilestoad 28.00 Missing Ring 21.00

Thief 21.00

Zaxxon\$28.00

Axis Assassin \$25.00

Music Construction Set 28.00

35.00

Planet Fall 35.00

ELECTRONIC ARTS

Pinball Construction

Infidel

Suspended

CALIFORNIA PACIFIC

DATAMOST

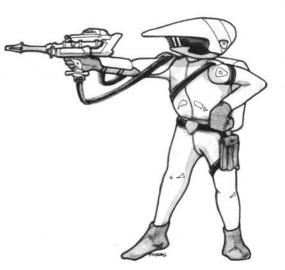
DATASOFT

Cosmic Balance (D/C) .	28.00
Cosmic Balance II	
(D/C)	28.00
Cytron Masters (D)	28.00
Galactic Gladiator (D)	28.00
Knights of the	
Desert (D/C)	28.00
Shattered Alliance (D) .	28.00
Tigers in the Snow	
(D/C)	28.00

Blue Max (D/C)	\$25.00
Dimension X (D/C)	25.00
Ft. Apocalypse (D/C)	25.00
Necromancer (D/C)	25.00
Pharoah's Curse (D/C)	25.00
Shadow World (D/C)	25.00
Shamus (D/C)	25.00
Shamus (R)	32.00
Shamus II (D/C)	25.00
Survivor (D/C)	25.00
Zepplin (D/C)	25.00

THORN EMI	
Hockey (R)	\$28.00
Jumbo Jet Pilot (R)	35.00
River Rescue (R)	28.00
Soccer (R)	35.00
Submarine Commander	
(R)	35.00
Computer War	28.00

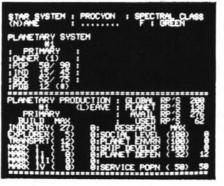
Standing Stones 28.00 INFOCOM Deadline\$35.00 Enchanter 35.00



REACH FOR THE STARS

Ed Curtis

NAME:	REACH FOR THE	
ТҮРЕ:	STARS Strategy Space Game	STAR SYSTEN
SYSTEM:	Apple II, C-64	DUNER (1)
FORMAT:	Diskette	加修業
PLAYERS:	1 to 4	1PDB 12 (#)
AUTHOR:	Roger Keating & Ian Trout	PLANETARY PR #1 PRIMARY BUILD MAX INTUISTRY(27
PRICE:	\$60.00	TRANSPRI 12
PUBLISHER:	Strategic Studies	
	Group	HARR IV' C
	Sydney, Australia	



Below you lies a scarred and pockmarked planet awaiting your decision to land an occupying force or to blast off the last vestiges of civilization from this once tranquil land. As tempting as it is to end your problems in this system with a single order, you are, alas, a conqueror, not a simple destroyer. The order goes out and fifty transports land at strategic points to control and pacify the temporarily stunned natives.

The above is an example of just one of the many situations which will face you (hopefully as the player with the decision to make) in the new strategy space game-REACH FOR THE STARS (RFTS). As the leader of one of four races expanding into the limited selection of 54 star systems, it is your responsibility to plan your races growth by balancing its economic, military, and research expenditures. Too much in the first, and your colony may be destroyed or captured. Too much in either of the others, and you might soon find your race hopelessly out-produced by all three of your competitors. With the factors of every game different, there is no "optimal" strategy. You must remain flexible enough to respond to new information as it is discovered. **THE GAME**

RFTS is designed for four players, up to three of which may be run by the computer. It should be noted here that the computer does a very creditable job, so much so that at its veteran level (the most difficult of three levels) it can prove to be a deadly opponent.

After selecting the number of computer players, their levels of competence, and the names of the human player(s), you are given the option of setting the following nine variables: Game Length (40, 80, or 150 turns); Novas (the possibility of a star going unstable and exploding); Natural Disasters (minor but dangerous setbacks to your young colonies); Xenophobes (described later); Solar Debris (dust motes which slow movement); Randomized Star Map (a new computer generated star map, other than the standard one shown on the included map); Task Force Set-up (starting with a small fleet and some transports, rather than with an already established colony); Variable Production Costs (which allows you to vary the costs of all factors within pre-set parameters); and Variable Victory Conditions (for those who want to be peaceful colonizers or "Space Huns"). By manipulating these variables, it is possible to customize RFTS into a vast array of possible games, each with its own distinctive flavor.

As mentioned, the star map consists of 54 star systems of various types, each of which has a set probability of having planets of a particular type (primary, secondary, tertiary, or hostile). These planets are, in turn, rated for a number of factors, including population, industrial capacity, and planetary environment. A primary planet, for example, might have a population rating of 90, maximum industrial capacity of 50, and a social environment of 75. This would mean that the planet could hold 90 factors of population before revolt became a possibility, could have up to 50 factors of industry built on it, and starts with an Earth-like planetary environment. (All factors fall on a scale of 0-100, so that a planetary environment of 75 is very good.) Of the three factors, only planetary environment is subject to enhancement beyond its initially set levels.

During the production phase, the phasing player is moved to each planet under his control and is given

LEGACY OF LLYLGAMYN: An Introduction to Wizardry's Third Scenario

by Robert Reams



NAME:	Legacy of
	Llylgamyn
TYPE:	Fantasy and
	Adventure
SYSTEM:	Apple II/IIe, III
FORMAT:	Disk
AUTHOR:	WARD, Andrew
	Greenberg and
	Robert Woodhead
PRICE:	\$39.95
PUBLISHER:	Sir-tech Software
	Ogdensburg, NY

The second second

Five generations have passed in the Kingdom of Llylgamyn since an intrepid band of adventurers regained the ancient armor of the Knight of Diamonds and the Staff of Gnilda. Since that time, peace and prosperity have prevailed. The tranquility of their idylic place, however, has been broken by an angry mother nature there have been earthquakes, tidal waves and other strange happenings. But, the people of Llylgamyn have tended to ignore these events. That is, until the peaceful seas rose and destroyed the colony of Arbithea and an earthquake damaged the temple of Gnilda. Panic was wide on the land until wiser heads called for a new generation of adventurers to seek the cause of their troubles. This new band of adventurers would accept a quest to save Llylgamyn from peril. There is only one relic which has power to reveal the source of the danger. A mystical Orb taken long ago by the great dragon L'kbreth, one of the five children of the World Serpent, and it is she who is dedicated to the preservation of the balance of the world. Legends passed down thru time say that this dragon has taken the Orb to her mountain lair. There she has involked the powers of good and evil to protect this wonderous orb from thieves. The leaders of Llylgamyn have appealed to the descendants of the heroes of the "Knight of Diamonds" and the "Proving Grounds of the Mad Overload" to quest during this time of need.

The new adventurers will be chosen from this years graduating apprentices. Each apprentice, age 20, will undergo the ancient Rite of Passage. These new level one characters will be used for this adventure.

Legacy of Llylgamyn (LOL) is not a stand alone adventure in the Wizardry series. Characters transferred from scenario one and two are required to enter into the Rite of Passage. This scenario will not allow questing on the Legacy of Llylgamyn disk itself. A blank disk must be initialized and then, using the utilities, a working scenario disk made. Again, using the utilities, you must transfer characters onto the new scenario disk from the first two adventures. (Note: It is important to remember to write protect the original disk during this process or the ancestor will be lost during the Rite of Passage.) Transfer sufficient characters to form at least two parties. This is a very challenging adventure and, unfortunately, there will be a loss among the ranks of the heroes.

Boot up this new adventure and go to the Training grounds. Using the "R" option it will be possible to create the characters which will be used. During this ceremony, there is only one point where a choice is allowed. Regardless of the prior alignment, each character being

created may declare a new alignment within traditional limitations. A wise move at this point will be to shift as may as possible of the characters being created to neutral alignment. Neither good nor evil characters alone can prove worthy of receiving that orb which is the goal of this quest. To complete this adventure it is necessary to have both good and evil parties. Maximizing the number of neutral characters in the parties means a more rapid accumulation of experience points for those able to travel with both groups.

Initially, the most striking aspect of this new adventure is again working with a character with only 12 hit points and no spells. This is a sobering experience for anyone who has been used to characters of level 20 and above with all available spells. It is necessary to remember to have an encounter and escape to the castle's Adventurer's Inn while you still can. (Try and remember playing Wizardry for the first time.) A good practice in Legacy is to back up your characters prior to entering the maze.

LOL was designed by the WARD group (Wizardry Research and Development Group) Robert Del Favero Jr., Samuel Pottel and Joshua Mittleman. They are in large part responsible for the quality product which is this new adventure. Andrew Greenberg and Robert Woodhead collaborated with this group to create the first of three scenarios which will be in this series. The thought and effort incorporated in this game design make it an exceptional challenge to even the experienced gamer. Strategy and preplanning are required for success.

The authors have enhanced the graphics display for presenting this new adventure. The new system is called "Window Wizardry". The hires images, showing greater detail and allowing better manipulation of screen graphics, provides greater control over the information available to the gamer. With this adventure, it is worth connecting a color display to enjoy the presentation of the new monster types as they appear.

The items available at Boltac's Trading Post have changed. To properly equip your new parties you either need to be familiar with medieval armaments or have a good dictionary. It will be wise to purchase portion of Dios, and on levels above one to purchase LATOMOFIS POTS in quantity as they will be needed for survival. A new command has been added which makes shopping much easier - the ability to pool gold, which transfers all the gold in the party to one person. Another useful command which has been added provides a list of the names of the characters who are eligible to join a party being assembled at Gigamesh's Tavern.

This adventure abounds with puzzles, riddles and strange new monsters. The mysterous island which you will discover on level one will be out of reach for quite a while, but when the means to cross the water becomes available, a very pleasant suprise will be found there. The challenge of the maze presented in Legacy of Llylgamyn will require careful mapping. There are six levels to the maze, with the levels above one containing hidden and apparently inaccessible areas, with secret doors scattered throughout most levels. There are plenty of chutes and one death trap. The death trap is a very nasty surprise inserted into the adventure for no apparent reason. There is a riddle which warns the adventurer not to proceed any further, unfortunately the nature of the trap is not apparent until it is too late. A warning to the adventurer reading this review, "a riddle in three segments do not proceed", if you must, have a backup because you are going to need it.

The quest takes place inside a mountain. The adventure starts at the lowest level and your parties must find their way to L'Kbreth's lair near the top of the mountain. With a suitable offering, it is possible to get the Orb of Earthin. The lowest level is inhabited by a fierce band of Garian Corsairs which you should skirmish with long enough to collect experience points worth at least two or three levels before attempting the next level of the mountain.

Level three will be the most difficult map to draw in any of the Wizardry adventures. There is a trick involved which, when understood, at least makes the mapping task possible. Level three may yield the "key" to a short cut which will save much door kicking. If this "key" is not found on level three, then try four. On levels four and five will be found objects which are vital to the successful conclusion of the quest.

A final word of caution. This adventure contains more deadly monsters than either of the other scenarios. Earlier I recommended that Dios portions be carried in the earlier stages of bring characters up in experience level. Above the first level, the questing party will encounter monsters which will poison members of the group — thus additional Latumofis Pots will be required. This adventure also contains more monsters which are life stealers. In an encounter, they will take experience points and reduce their opponent a level. Your only sure protection is to back-up before entering the maze.

Anyone who has played Wizardry and was slightly disappointed by Knight of Diamonds, should be very pleased with the Legacy of Llylgamyn. In every way, it is a superior product. By staring with new characters set at level one, the excitement is back. The new windows are exciting, and even though they slow the game some, the overall effect is well worth the slower speed when one considers color scenes and the improved information display which may be toggled on and off as required.

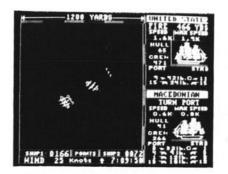
The Legacy of Llylgamyn is an example of the maturing and improvement of an already excellent product. This new adventure will challenge all who accept this quest and will leave you looking for the two sequels which follow in its path.

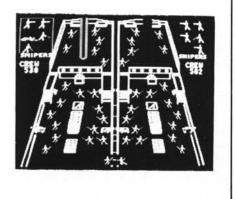
BROADSIDES

Dave Long



NAME: **Broadsides** TYPE: Tactical/Arcade Wargame SYSTEM Apple II FORMAT: Disk **#PLAYERS:** 1 or 2 Wayne Gavris AUTHOR: PRICE: \$39.95 **PUBLISHER: Strategic** Simulations Mountain View, CA





"Avast there, ye swabs!! Load with chain shot now, me hearties, an' aim fer 'is sails! We'll cripple 'is wings and then dance a pretty ring around 'im..."

Unfortunately, while I was firing at his sails, he was firing at my hull with solid shot, and my sweet ship went to a watery grave just as his masts came crashing down. My problem, as usual, was a poor eye for distance, and the frustration of often seeing my shots splash into the sea while my ship shivered to the impact of his Broadsides.

Thus ended one of my many encounters on the high seas in SSI's new tactical simulation of ship-to-ship battle in the Napoleonic era. Your options during combat are many, your options in selecting and/or creating ships even greater, and when you get frustrated with tactical decisions (like what type of shot to use or which type of sails to hoist), you can opt for the arcade version of the game and just blast away incessantly without bothering over details.

THE BATTLE ROYAL

During battle you give orders to your crew of stalwarts by turning the paddles to change the displayed command, and then pushing the paddle button to select your order. Orders can also be given using the keyboard or the Sirius Joyport along with an Atari joystick. The keyboard option is a bit slower than the paddle option, but since both sides play with the same system, it doesn't really affect the play of the game.

Your options during battle are as follows: Turn to Port, Faster Speed, Steady Speed, Slower Speed, Back Sail, Battle Sail, Full Sail, Solid Shot, Chain Shot, Grape Shot, Aim at Sails, Aim at Hull, Fire xxxx Yards (low range), Fire xxxx Yards (mid range), Fire xxxx Yards (high range), and Turn to Starboard.

After selection of your order, the

crew acknowledges your command with a snappy "Aye, aye, sir", and begins to implement your desires. Naturally, since these are wooden sailing ships and not formula racers. a command to turn, or change speed or sailing configuration takes time to implement. The larger your ship (under normal circumstances) the slower she is to respond to the helm. Should you happen to give the wrong order, you may find yourself headed for a disasterous loss, since your crew must first respond to your incorrect order and then try to compensate for your ineptmess. All this costs time, and the enemy may well be maneuvering to rake your bow while you blunder about.

THE DISPLAYS

The combat display is superb. On the left %ths of the screen, you are shown a seagull's eye view of the engagement, depicting the two ships in relation to one another. Below the ships you are given a two line display

showing each side's current victory points, wind speed and direction, and the time of day. Each battle begins at dawn (6:00 AM) and can continue until sunset (6:00 PM), though I've never seen an engagement last that long. Wind speed and direction can change at any time, and the wind can blow in the same 12 directions in which the ships can move. As in real life, these lumbering behemoths of the sea move very sluggishly on a tack, and not at all directly into the wind, but they can really kick up their heels with the breeze at their backs.

'Tis one of the facts of the sea that the wind can shift at crucial moments, and ye'd best be alert, for 'tis foolhardy to be still givin' orders when ye've not noticed the wind shift!

As the ships maneuver, and the distance between them changes, the scale of the gull's eye view changes, going from 1200 yards across the display to 600 or 2400 yards. Should the distance become too great, (1500 to 2000 yards apart) the two ships will disengage and then re-engage one hour later in prime broadside array. You can't run forever!

The right % ths of the screen shows details about the two ships. Combat begins with a sillouette of the two ships, and a display of your hull points (when they fall to 0 you go to meet Davy Jones in his locker!), your crew strength (lose too many men and you'll strike your colors), current speed, maximum speed, current order selection, and, last but not least, the number and type of guns on each side of your ship.

As you suffer and inflict damage, the ship detail display reflects that damage. You will see holes appear in your hull, watch your crew strength diminish, grimace as your sails are shredded by the enemy, and even be kept up to date on the guns you each lose during action.

When you sink your opponent, or vice versa (much more common in the early games I played) you'll see the ship sink slowly below the waves.

Many actions are decided not by the exchange of broadsides, but rather by cut and parry of your bonny crew on the decks of the two ships. When you close with your opponent, you cast grapples to tie your ships together, the screen changes from the sailing display to the boarding display and, or course, your command options change as well.

During the boarding engagement, crew members are distinguished by the direction they are facing, and you command your men to attack or retreat, fight very aggressively, very defensively, or in balance. You also command your snipers to fire at the enemy on your deck, on their deck, or at the enemy snipers. It's usually wise to avoid firing at your own deck unless things are looking pretty bad, since you may very well miss and kill your own men. "Friendly Fire" was a threat 200 years ago too!

Intelligent use of the boarding option can truly snatch victory from the jaws of defeat. If your hull is looking more and more like a sieve, and your sails appear more akin to ribbons than sheets, vet your crew remains strong, try to close with the enemy. As you close, fire grapeshot to decimate his crew, for a point blank range you can't miss, and you do double damage. One or two barrages of grape can severly deplete their numbers and then you should tie 'em up. More than once I've saved the day with this tactic, though the enemy will try to fight a defensive boarding action and cast off the cables which bind you together. If this happens, the ships drift apart and play reverts to the sailing screen. Try to close again! Be persistent!

On the other hand, should positions be reversed, avoid a boarding action like the plague! But, should it appear imminent, blast 'em with grape and then try to slash the cables. Just remember, each man you see fall means 10 crew casualties, and you can't fight without a crew!

THE VARIABLES

Five original set ups are given on the game disk, from easiest matchup against the computer to hardest, with two of these available slots on which to save your own matchups. Using the variables, however, you can recreate many of the greatest historical battles, or make up your own.

You can change your ship's name,

her hull strength, crew strength, number and type of guns carried, speed, turning and reloading time, fire and sniper effectiveness, and boarding casualties inflicted. If you get sick and tired of ending each game with a swim in the drink, make yourself a super ship and go at it anew! The variables pages also allow you to save your newly created matchup under Player Option A or B, to avoid having to re-invent the wheel each time you play.

VICTORY CONDITIONS

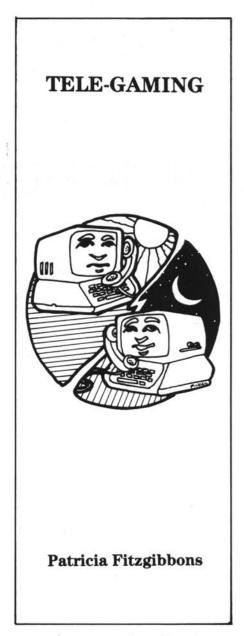
Victory points are awarded for destroying sails and masts, killing the enemy crewmen, damaging his hull, and for destroying enemy guns. The victor also scores a bonus based upon the elapsed time of the battle. Thus, if you sink him quickly, you'll score more points than if the battle drags on til late afternoon.

HISTORICAL SHIPS

Statistics are given for 22 actual ships of the era, perhaps the most famous being John Paul Jones' famous Bon Homme Richard vs. the British Serapis. In addition, historical data is presented for British, French, American and Spanish ships of the era, so you can discover for yourself the whys and wherefores of the tactics of the day. The Spanish, for example, were much slower at turning and reloading, while the Americans, though not inflicting as great a damage as some others, could maneuver and reload faster than most.

CONCLUSIONS

Broadsides is an excellent depiction of ship-to-ship combat in the famous age of "Wooden Ships and Iron Men." The graphics are very pleasing, and the historical statistics presented allow you to create a virtually unending array of different battle situations. The arcade game allows you to continue to fight battle after battle with the same ship (so long as you keep winning), while the tactical game makes for a good tournament situation, say best three out of five battles, or most victory points scored during a specified number of engagements.



'Tis the season of twinkling lights, brightly colored packages, and holiday cheer; a time for family gatherings and the renewal of old friendships. But maybe you're feeling a bit lonely, sitting in front of your computer with only a machine as your gaming partner. Perhaps you're wishing you could join a group of new friends and explore a dungeon together, or you're imagining the fun you could have as a valued member of a starship crew in search of vast and uncharted galaxies.

At some point, most of us tire of solitary games and want to match wits with real live human beings. But can you, at home with your computer, meet other gamers for a friendly contest? You bet your sweet modem you can!

In this issue and the next, I'll be discussing interactive multi-player ("MP") games. The idea of MP games is as ancient as gaming itself; the reality of today's electronic MP games requires a computer, a modem, and a subscription to a telecommunications network. Because MP games are difficult to design and quite costly to produce, they are relatively rare. The Source, for example, is working on the possibility of MP games, but none are online at this time. CompuServe, however, has a number of MP games in place, and more are planned.

The most popular MP game on CompuServe is "MegaWars," and it is played in real time by thousands of gamers every week. On a typical evening, one hundred or more space warriors roam the universe in teams of up to ten players. New recruits can join either the Colonists or the Kryons, and teams are assembled informally or by posting announcements on the electronic bulletin board of the Multi-Player Special Interest Group ("MPSIG"). As a member of MPSIG, you can communicate with seasoned "MegaWarriors" (with names such as "Admiral Danger," "Han Solo," and "THX 1138"), set up pre-game conferences or scrimmages, challenge other teams to a game, and trade strategy tips. "MegaWars" is an institution on CompuServe and has attracted a core of dedicated players. Drop by MPSIG one evening and see what the fuss is all about!

Recently, CompuServe has introduced "MegaWars II," an MP space wargame that features sound and color graphics for users of Compu-Serve's VIDTEX terminal program. Two four-man teams compete to capture planets and annihilate enemy opposition. With the help of your ship's phasers, shields, scanners, and sub-space communications, you and your teammates can spend many exciting hours playing this fast-paced game.

If you're more comfortable as a free-lancer, you can bypass the team system of "MegaWars" and try your hand against up to nine individual players in CompuServe's MP "Space War" or "DecWars." Keyboard commands, such as "F" to fire missiles and "M" to move your ship forward, allow you to accomplish your seek and destroy missions. Although similar to the mammoth "MegaWars," "DecWars" is easier to learn and faster to play. You may wish to warm up for the larger, more difficult game by working up through the "Dec-Wars" ranks first.

If an evening of "The Wars" has left you keyed up, you might enjoy a relaxing session in CompuServe's Casino. At present, only MP Blackjack is online, but MP Poker should be available soon. One thousand wagering credits are yours when you take your place at one of the fourman tables. You can gamble, deal, or simply watch the fun, and by using the "K" ("kibitz") command, you can send messages at any time to other players or members of the peanut gallery. Even if you're unlucky and must be ushered out of the Casino (bankrupt!), you may obtain more credits from the friendly cashier.

Maybe you would prefer to play with several friends at home, all of you sharing your one machine. If so, you can still enjoy multi-player gaming. CompuServe also offers "Backgammon," "Concentration," "Football," "Scramble," and "Fantasy." Each player can then take a turn, and CompuServe's computers act as both the playing field and scorekeeper.

In addition to the computer games I've mentioned, CompuServe is host to the Gaming Special Interest Group ("GameSIG"), whose membership includes almost five thousand gamers. GameSIG schedules online, real time, fantasy role-playing games such as "AD&D," "Traveller," and "Man, Myth, and Magic," as well as ongoing games of "Diplomacy," "Monopoly," and "Risk." Time and distance disappear when a group of "Dippy" players from all over the country get together with their GameMaster to plot international intrigue.

Of course, almost any board game can be played "live" in GameSIG. Usually, a group of players schedules a date and time for a game. The players then keep track of their

INTRODUCING CUBET FROM MICROMAX.

ELECTOPICAX



FOR THE APPLE COMPUTER

Apple is a registered trademark of Apple Computers, Inc.

!440)

00

CUBIT. The only game of its kind for the Apple Computer. Innovative, new and colorful. Cubit offers an extra dimension. It transforms a two-dimensional screen to a 3-D arena. **Cubit offers** more than just the hand/eye coordination of typical shoot'em-

up games. It offers fast-moving, action filled, strategy based entertainment. And you don't have to be a concert pianist to handle the controls. Simple to learn, yet enormously challenging to master. Playable with both joystick and keyboard.

For 48K Apple Computers with 3.3 DOS. Enjoyable in black and white, but a whole lot more fun on color monitor.

Look for our next game, to be released soon.

Dealer/Distributors — Please contact us for details on Cubit and our Apple and IBM PC line of products.

Micromax Systems, Inc. 6868 Nancy Ridge Drive San Diego, California 92121 (619) 457-3131

See us at forthcoming Applefest and Comdex shows.



INNOVATORS IN MICRO-COMPUTER SOFTWARE



North Atlantic '86: Review and Strategies

Jay Selover

NAME: North Atlantic '86 TYPE: Strategic Wargame SYSTEM: Apple II FORMAT: Disk **#PLAYERS:** 1 or 2 **AUTHOR: Gary Grigsby** PRICE: \$59.95 **PUBLISHER: Strategic** Simulations Mountain View, CA

AMERICA SCAPA FLOW FAROES

North Atlantic '86 (NA86) is the third Gary Grigsby design to be published by Strategic Simulations Inc. It uses the same basic game system as Guadalcanal Campaign and Bomb Alley, but stretches it right to the limits in portraving the complexities of modern naval conflict. The game begins with a hypothetical set-up well into a NATO-Soviet war in 1986. The Soviets have subdued West Germany and Scandanavia, and have forced neutrality on France. As the game starts on September 7, the Soviets are established at their bases in Murmansk and Riga, and at captured bases in Bergen (Norway) and Hamburg (FRG). An invasion of Great Britain is the ultimate goal, but first the naval lifeline to the United States must be cut. Allied bases on the Faroe Islands and on Iceland are the key. If these can be captured, long-range Backfire bombers will be able to devastate the NATO supply lines and ultimately starve out Great Britain.

There are several perspectives from which to evaluate a wargame

on hypothetical future conflict. First, is it an enjoyable game? (Yes.) Second, does it accurately portray current and future capabilities and propensities? (Yes.) And third, is it likely to happen that way (would the game be a good training aid for midshipmen at Annapolis)? (No, at least I hope not.)

If you haven't seen a Gary Grigsby design, the game uses half-day turns (a daylight turn, then a night turn). The player controls the naval and air forces of his side (and also, abstractly, the available amphibious and airborne infantry). In a turn, one first creates new task forces and/or combines and divides those already in action, and then moves each one individually on the 40x40 low-res map. Next comes assignment of the aircraft you want on combat air patrol (CAP) over your bases and task forces. Next, searches are conducted to locate enemy task forces. Finally, one assigns air strikes and missile attacks against spotted enemy task forces and bases. The computer then takes over and resolves all combat (CAP and flak vs. airstrikes and

missiles, airstrikes vs. ships and bases, surface combat by opposing task forces, and any land combat between infantry forces). The computer also handles reinforcements, a "repair and refit" pipeline for ships, and the unloading of any troops and supplies which have been sealifted to their destination. The system is not a dazzling graphics display; its forte is rather in managing large forces of ships, airplanes, and infantry, and in processing complex search and combat routines. Believe me, you don't need graphics for excitement. When you see the message, "SSN-116 FIRES TORPEDOES . . . TOR-PEDOES APPROACHING CVN-NIMITZ . . ." followed by a pause, your pulse will quicken!

Something Old, Something New

If you're a veteran of Guadalcanal or the Mediterranean, you might be interested in the new staff in North Atlantic '86. There are a few general system refinements: more task forces are now allowed (9 for the Soviets and 11 for NATO), a new option off the task force menu gives an update on the status of all friendly bases, and the pipeline display can now be set to scan only a particular ship type and/or a limited length into the pipeline. Most of the additions actually pertain to modern combat. For instance, air missions now take place in night turns as well as daylight turns. Also, one no longer needs to assign combat aircraft to searching. The computer maintains an inventory of utility aircraft (search planes, early warning planes, and helicop-

Continued on p. 46



TM designates a trademark of Sierra On-Line, Inc. © 1983 Sierra On-Line, Inc. or Sydney Development Corp. B.C. characters © Field Enterprises, Inc. 1983. Manufactured under license from Coleco Industries, Inc.

"BEAT TO QUARTERS! RUN OUT THE GUNS, AND CLEAR FOR ACTION!"

These urgent commands of the 18thcentury captain are now yours to issue as you re-enact legendary naval engagements from the age of fighting sail.

BROADSIDES — a new game from SSI — gives you non-stop naval action, as fast and demanding as the historical battles it re-creates.

In this two-player/solitaire simulation, the ships will be rigged, manned, and armed just like the real ships were, and will handle in the wind just as real ships sailed.

For speed of play, the ARCADE game lets you sail right into action. You set your course, maneuver and fire broadsides as fast as your crew can reload.

For authenticity and historical detail, the TAC-TICAL game puts you on the quarter-deck. There, you make the decisions real captains had to make: How much sail? What course for best speed? Aim your guns for the rigging or waterline? What range? Load with solid shot or grape shot? When the ships move within grappling range, your boarding parties and sharpshooters will decide the battle. As you watch the fighting on your screen, you'll give orders for your saber-wielding men to thrust, counter-thrust or hack away.

If you want to design your own ships, **BROADSIDES** lets you build frigates and ships-of-the-line from the keel up, rigging them, manning them, and arming them with everything from 12-pounders to hullsmashing carronades.

The enemy's guns have been rolled out, his sharpshooters are in his tops, and he's almost within range. The battle is about

to begin.



Your ships move faster than real-time on the HI-Res color screen.



The semi-animated boarding phase.

FOR THE APPLE®

BROADSIDES" (\$39.95) comes on 48K disk for the Apple II with Applesoft ROM, II+, IIe, and Apple III.

Designed by Wayne Garris.

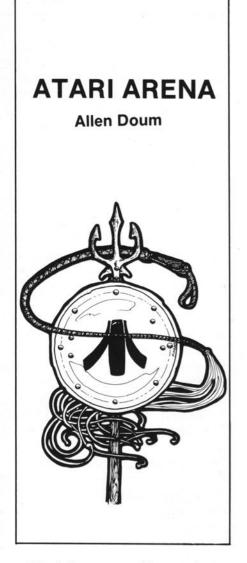


If there are no convenient stores near you, VISA & Mastercard holders can order direct by calling **800-227-1617**, ext. **335** (toll free). In California, call 800-772-3545, ext. 335.

To order by mail, send your check to: Strategic Simulations Inc, 883 Stierlin Road, Bldg. A-200, Mountain View, CA 94043. (California residents, add 6.5% sales tax.)

WRITE FOR A FREE COLOR CATALOG OF ALL OUR GAMES.

APPLE is a registered trademark of Apple Computer Inc.



All of the reasons (discussed two issues ago) for converting a game from one computer to another also apply to converting a game popular in the arcades to home machines. The fact that a game already has a following makes a success more likely than with an original game. But, if the reasons for doing so are the same, so are some of the disadvantages.

An arcade machine can be built with all the custom hardware and software that the game might require: extra buttons, special graphics, and now even laser discs. The home machine, like any general purpose device, is at a disadvantage.

There are two issues that have nothing to do with that advantage. The first is that a home game is under different economic constraints than an arcade game. This is largely ignored in the demand for these games, but some publishers, Atari for instance, make the beginning levels of play easier on the home versions since the game is no longer interested in George Washington's face.

The other issue is originality. This is a two-edged blade. On one side are the rights of creators of the original game. They took the risks on a new product or idea, and should profit from any "spin-offs". But what about the guy who doesn't own the machine that the "authorized" version is released on. Are the owners of Apples, for example, not supposed to play *Star Raiders*, or any game similar to *Star Raiders*, just because the only authorized edition is on the Atari?

Whatever the legal answer to that question is, it is obvious that many software producers and purchasers do not find games "derived" from other games objectionable. (And arcade game manufacturers are not exempt from this either, of course).

When is a game a copy? Or a variant? Is a sequal any more or less a rip-off? How new does a new idea have to be? There is no set answer to these questions. Each gamer (and game creator) has to set his/her own definition. In the current situation, each new game popular in the arcades starts a race to get a similar game on the market for each of the machines. And, because the "authorized" edition has to try to live up to the original, a "derived" game may even be more fun to play. The race is on...

... and it looks like ZAXXON. It would be difficult to decide just how original ZAXXON was in the first place. The scenario is remarkably similar to Scramble, right down to the use of target fuel tanks to refuel the players aircraft/spacecraft, and both games giving the player control of two dimensions of movement on a constantly scrolling playfield. What ZAXXON did of course, was to scroll the playfield in a different direction than either of the ones that the player was controlling, giving a "three dimensional" perspective to the graphics. The two games below take opposite approaches to the problem: one maintains a similar scenario while cutting back on the graphics

action; the other maintains the graphics perspective while drastically changing the senario.

Nightraiders from Datamost, keeps the alternating "city" and "space" screens. The players ship moves left and right, but altitude is only indicated by how high "up" the screen the players bullets go. The playfield scrolling is vertical only, not diagional.

Blue Max (from Synapse) restores the diagional scrolling, but moves the action to a somewhat fanciful version of World War One. The player may strafe or bomb a variety of ground targets, while enemy aircraft may appear at any time, from in front or behind the player. By hitting "priority" targets the player may advance to the next of three levels. One major difference here is that there are no "lives" to lose in Blue Max. Each hit damages the plane in one of four ways, with a fifth hit ending the game. Damage is repaired by landing at a friendly airstrip. Any time the plane crashes, no matter how well the player has done, the game is over. While many will say that this is more realistic than "lives", the loss of the game from one mistake can be quite frustrating.

...and it looks like Q^*BERT . In truth, we seem to be knee-deep in Q^*BERT 's these days, without even counting the authorized cartridge from Parker Brothers.

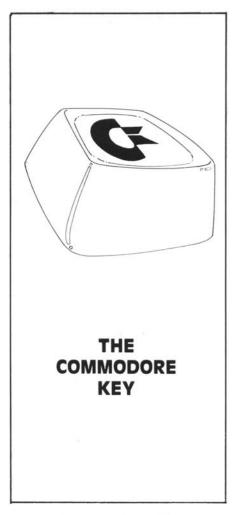
Juice (from Tronix) is not exactly like Q*BERT, of course. The main difference is the playfield; seen as a forshortened rectangle with many of the squares missing. The player must move over each of the squares the required number of times for each of six levels of play, with three different layouts in each level. There is a bonus board at the end of each level. Because of the rectangluar shape, joystick control is a little easier to learn than with O*BERT, but the game is not substantially better or worse than the original - just a little different.

... and it looks like Donkey Kong.

...and it looks like Dig Dug.

...and it looks like Frogger.

...and it (still) looks like PAC-MAN. ...and it looks like this trend will be around for awhile.



Commodore 64 Roy Wagner

This time I would like to talk about understanding the Commodore 64 (C64) and how that relates to the games we can expect to see. In the last issue of CGW, Jon Freeman had some pretty harsh statements to make about the C64. Some of what he said is valid, some inconsequental, and some showed a definite lack of understanding. I do not blame Jon for his lack of understanding as I do not think Commodore fully understands the potential and capabilities of the computer. The C64 is only an infant (barely a year old) and consumers and programmers are only beginning to see what it can do.

The C64 came from a long line of very capable black and white computers. These computers lacked the expressive powers of color and good sound. The first entry into the world of color and high resolution was the VIC. This computer showed good potential and is still a very successful computer. It gave the designers at Commodore something to expand on, something that with significant newly designed chips came to be the C64. The engineers for the most part understood what they were doing. However the people writing manuals and programs did not understand what powers the engineers had given the new computer.

The operating system designers took a very simple and smart approach. They took the existing small 8K ROM operating system and the existing 8K ROM BASIC 2.0 (BASIC 4.0 would have required another chip) and slightly modified them to use the new 6510 chip (an expanded 6502). The C64 does have 64K of RAM (user available memory) that can contain anything. Typically 24K is used for the operating system, BASIC, character set, and miscellaneous 4K. This leaves about 39K of memory available for the novice BASIC programmer. Game programmers who understand how to use the 64K of RAM are able to take advantage of much more than 39K of memory. A programmer with great understanding, could even replace BASIC and the operating system with versions that did only what they needed to have done. These new versions would simply be loaded from disk when the game was loaded.

The color display designers provided the Video Interface Chip (VIC. no direct relation to the VIC computer). This chip extended the state of the art to give the C64 extensive capabilities. It gives us programmable character sets, single and multi-color sprites, high resolution and much more. Screen, color, and character memory are all relocatable. They gave us enough colors for all practical programming and gave us black, white and three shades of grey so that displays not requiring color (such as word processing) could be distinctly provided. The greys also work nicely for shadows. Sprites are easily positioned using X-Y coordinates.

The sound designers looked at several very expensive commercial synthesizers and provided an extremely sophisticated Sound Interface Device (SID) chip. It's capabilities are difficult for the novice programmer to use. However, a great many software packages are available both in public domain and commercially to make things easy. The SID chip actually has four voices; three output and one input (not discussed in the manual). This voice accepts microphone or recorded input (voice or music) and can be processed by the SID filters and output to the monitor or external speaker(s) with the other three voices. Another SID chip with three voices can also be chained to provide six voices and this can be done many times to provide unbelievable sound. Understanding how to use all this power is only beginning.

What does this mean to the computer gamer? It means most of us have not yet seen the great games that will be. Any game that is written for Apple II and IIe can easily be converted to the C64 and be significantly better if the programmer doing the conversion "understands" the C64. The capabilities of the Atari computers are very similar to those of the C64, so those conversions will be as good, if not better. Right now we are seeing a lot of software released for the Apple, then the C64. That is because the Apple has been around for a long time and their programmers fully understand the capabilities of the Apple. Soon you will be seeing much more quality software being released first for the C64 then the others.

ACCESS SOFTWARE INC understands the C64. Their software games have been first and only for the C64. Their first release, NEUTRAL ZONE, positions you in a space module at the edge of the galaxy with the task of protecting your home base from alien attack vessels (several different types). Your "gun turret" rotates 360 degrees for a full panorama (the view is fantastic) as the screen scrolls left or right. The three dimensional gun fire and sound effects are excellent. It gets lonely out there in space, but if you don't defend your base it will be destroyed. The game offers several levels of play.

The newest game from ACCESS is called BEACH-HEAD (BH). This

game shows how the company has taken understanding and expanded on it to do greater things. This game requires you to accomplish several tasks as commander of the sea and land forces attacking a beach-head in the Pacific (you can almost hear the waves). You must destroy straffing enemy aircraft with your pom-pom guns, then shell enemy ships who are also attacking you. You then land on the beaches with your armored vehicles to travel past many obstacles and enemy fire to reach the enemy bunker. Your fire power must be quick and accurate here, because when the enemy sets aim on you it never misses. BH has excellent action graphics and tremendous sound effects, with the top scores saved to disk. Both games are more arcade like than strategy/tactic and retail for \$34.95.

In the last issue, I commented about good original software and look alikes that are not worth buying. Another prime example of this are two game conversions that have just been released for the C64. Bill Budge's PINBALL CONSTRUCTION SET (PCS), from Electronic Arts (reviewed in CGW, MAY-JUNE 83) is outstanding (C64 conversion was done by Olaf Lubeck). It includes 5 demo pinball games that play like the real thing (except for letting me jostle the machine when I had a ball stuck). It even includes some extras that neither the Apple or Atari version have; multi-color mode for up to 255 color combinations and a format disk option. The pinball games you construct can be given to friends who do not yet own the construction set.

The other game, Broderbund's DAVID'S MIDNIGHT MAGIC (DMM) (reviewed in CGW, MAR-APR 82) is ONE pinball game that plays nicely, has good sound and colors, and saves the top 10 scores to disk, but it is only one game with some slight control options. Both games PCS and DMM are prices at \$39.95. With the PCS, you could construct your own DMM. Another game from Broderbund, with tremendous possibilities (150 screens + any you want to construct) is LODE RUNNER. This game was the subject of a feature article in the last issue (OCT.) of CGW.

I would like to thank Bob Johnson at D.E.S. for making the above games available to me for this article.

Vic-20

Dr. Johnny L. Wilson

The Commodore Key to Strategy -At last, Avalon Hill is translating some of its original microcomputer games for the Vic-20. NUKEWAR, a player vs. computer war game, is one of the first. The screen shows two 64 point grids, each representing a fictional country (though almost all my friends seem to name them USA and USSR on their first try). The game begins in a random cold war year, anytime after 1956. Each turns equals one year. It CAN continue until the 1980's before the computer launches a "hot" war at the player's nation. Don't count on it, though. Every year makes it more and more probable that the computer will launch a nuclear attack.

Each year (turn), the player may either a) build two bases or b) build one base and spy on the computer's nation. The first choice has the advantage of building one's offensive capability more swiftly, but has the disadvantage of catching you flatfooted if the computer attacks that year. The second choice builds offensive punch slowly, but has the advantage of giving the player a first strike capability when the computer plans to attack first. At the start of the game, if it's before 1965, the player can either build bomber or missile bases. Bombers are more accurate offensively, but are much slower in reaching their target and more easily defended against. Defensively, it is necessary to build several bomber bases in order to have an adequate air defense against the computer's bombing raids. Missiles activate and strike much faster. Starting in 1965, the player may build "Polaris"-type submarine bases. This enables the player to develop a balanced defense "triad." And, starting in 1970, the player may build ABM bases.

When "hot" war is declared (either by the player or computer) the game switches to a "tactical" level. The player must decide what bases to activate, what targets (on the basis of previous intelligence) to choose and whether to negotiate or not. There is a chance that some bases will activate automatically, however.

Strategy Hints: 1) Since "hot" war is not likely to start in the first 4-6 years of the game, build two bases every year for those years. Then, spy every year thereafter to insure a first strike and a good awareness of potential targets. 2) Since the more bases of a type that are available to you increase the likelihood of their automatically activating (and saving you a game turn), build in a balanced manner. 3) Don't negotiate unless you have a clear-cut advantage. (16K expander required).

Commodore Key to The Unknown Prickly-Pear Software markets GANGBUSTERS, a multi-player strategy game for the Vic-20 with 16K expander. Two to six players attempt to progress from PUNK, to HOOD, to RUNNER, and eventually to SYN-DICATE BOSS. Our games have generally taken longer than the 1-2 hours suggested in documentation, however, since we spend an excessive amount of time at the track. One flaw in the program is that one of the players invariably gets locked out of the first game turn. It's aggravating, but not insurmountable.

Each player has the opportunity to invest in unions, bootlegging, prostitution, bullet-proof limos or the bribery of police at the start of each turn (which equals one year). That is, you may if you are not in prison. You may also be offered a chance to fill a "contract." Next, each player has the opportunity to go to the track to play the ponies (or meet some underworld touts and tipsters). After visiting the track, the player can try to "pull" his record, pay back the "juiceman" (loan shark), steal a limo, of, if high enough in the mob, put out a contract. Finally, you can adjust the percentages you want to collect from each of your rackets.

The program offers colorful bookkeeping and flawless tabulation. It has very limited graphics, but is an intriguing game with more than one strategy which can win.





SURVIVAL

For ATARI® 400/800

You are stranded on the alien world of Coryphire. Your only chance of survival is to travel 340 kilometers to an abandoned research station. Unfortunately, the planet has difficult terrain, and is populated by several carnivorous — and hungry — life forms. Your skill and cunning are your main tools for survival. You will salvage as much as you can carry from your starship and begin your trek. With a fair amount of luck, your supplies should last — if you hurry!

SURVIVAL Computer Game recreates the struggle to survive on a hostile alien world. The computer controls the encounters and displays a map showing your location. Once in an encounter, you select how you are going to respond and what weapon you are going to fire. The computer then resolves the combat. The game contains three "Survival" games, and one "Hunt" game which turns the tables on the creatures of Coryphire. Several options which will further increase the number of situations which may be played may be selected by the players prior to the playing of each game.

THE WAR OF THE WORLDS

Determined to escape their dying planet, the Martians have launched an invasion on Earth. You are Mankind's only hope of stopping the invading aliens. Unprepared, and without knowledge of how to stop the awesome aliens, you must marshal the Human forces around London to attack the Martian invaders. Time is not on your side. Soon the Martian invaders will have the toehold they need to subjugate all Mankind unless your desperate counterattacks succeed.

THE WAR OF THE WORLDS Computer Game recreates the life-and-death struggle between the Martians and the Humans, as depicted by H. G. Wells in his classic novel. You are the commander of the Human forces, and must deal with the computer-controlled Martian invaders. The game has six pre-set levels of play, as well as a game version which allows the player to create his own level by changing key variables prior to play. The screen depicts the area around London of 1896, the landing site of the Martian invasion in H. G. Wells' novel.



Atari is a registered trademark of Atari, Inc.

TASK FORCE COMPUTER GAMES are strategy games which allow players time to think out their best move. Atari[®] 400/800[™] 16K and Atari[®] 410[™] Cassette Player required for play. Joystick is required for SURVIVAL, and optional for THE WAR OF THE WORLDS. Program versions which allow the games to be replayed without reloading from the cassette tapes are included for players with a 32K machine.

TASK FORCE COMPUTER GAMES — The NEW FORCE in gaming.

NAME OF THE GAME (Cont.)

widget - or, at least, similar widgets. The New Yorker's been working on the project for two years, the Californian for five. For dramatic effect, let's suppose they finish on the same day, but the New Yorker manages to get in line at the Patent Office just ahead of the Californian. What happens? The New Yorker gets the patent; the Californian gets nothing. Forget five years of work, an earlier start, and the obvious fact that neither was copying from the other; for the next seventeen years (the term of the patent), the Californian can't do anything with the widget without the New Yorker's permission. (If this strikes you as just a tad unfair - as stupid, in its own way, as the trademark provisions mentioned earlier you won't get any argument from me.)

But wait. If they had been working on games, not widgets, the results would be entirely different. In that case, it doesn't matter who got in line first; for the rest of their lives (plus 50 years that probably won't matter much to either one) both of them are entitled to copyright protection for their own efforts. Regardless of the similarities in the two widget games, unless it can be proved that one designer actually copied the game design from the other's game, neither owes the other anything.

This brings us to another crucial point of copyright law that almost no one understands: you cannot repeat, cannot — copyright an idea. (If you thought that was exactly what does get copyrighted, you have lots of company, but you're still wrong.) You can only copyright the expression of an idea, not the idea itself the design of a game (as I use the term) but not the concept.

What in the world does that mean???

REAL MEN DON'T EAT GARLIC

Let's go back to our two widget inventors turned game designers and suppose that the New Yorker, a fan of Bela Lugosi, decides to do a board game called *Vampire Spy*. Six months later, the Californian releases *Love at First Byte*, a computer game. The New Yorker says, "It was my idea first." The Californian says, "No, I started working on a vampire game five years ago." Both consult lawyers, who tell them they can't copyright the notion — the idea — of "a vampire game" — only a specific vampire game: the expression of that idea. A vampire game that used precisely the plot and characters of *Dracula* would be such an expression, but it would, in fact, infringe upon the copyrights already held by author and studio.

Still suspicious (or maybe just greedy), our New Yorker protests, "But Love at First Byte has wooden stakes, garlic, coffins, and silver bullets, just like my game!"

"So did our movie!" cries a studio rep.

"So did my book!" wails the ghost of Bram Stoker.

"And they weren't original with him, either," grumbles someone.

In fact, due to "convergent design," the "variables" in many games — especially simulations aren't all that variable. If two independent people or companies do a game on the Battle of Gettysburg, we would not be surprised to discover that the basic conflict, objectives, participants, and setting were similar; in fact, we would be shocked if we found Robert E. Lee commanding the Union army.

Even in such cases, however, we as critics, fans, and game players want a moral resolution, even if a legal one is hopeless. We want to be able to decide whether and whom to blame, and whom to praise. Did Company *B* rip off Designer *A* or not?

DID THE BUTLER DO IT?

Often the answer is easy: many plagiarists don't bother dissembling because they don't know — or don't care — that there is anything objectionable about copying someone else's work. Some cases, on the other hand, are so murky that only the possible plagiarist knows for sure. The rest of the time we must satisfy our own consciences with our own best judgments.

This calls for careful, intelligent analysis of whatever evidence is available. For starters, do the companies or designers have a reputation for imagination or imitation? Then look at the games. In our vampire example, the similarities in the two games (coffins, stakes, etc.) are expected; they go with the territory. What is notable are the differences: a love story (game) set in San Francisco and a spy story (game) set in an imaginary Balkan country have less in common than we would expect. given a vampire hero in both. Having more or less the same "Order of Battle" in both Gettysburg games would be reasonable; having an entry in both Combat Results Tables that read, "FLYING SAUCER CRASHES; ALL DEFENDERS KILLED," would be more than I would ever believe of coincidence. We do not, then, concentrate on the logical, normal, and expected; we examine the peculiar and idiosyncratic.

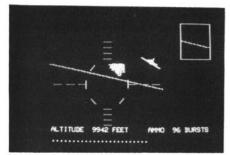
Using a maze in a game is like using squares, hexes, or a track around the edge of a board; evidence of neither plagiarism nor novelty. It tells us nothing about the designer's creativity or integrity. On the other hand, dot-eating is neither a natural activity nor a traditional design element. Nor are power pills that turn the hunted into a hunter. The combination of dot-eating, power pills, a specific maze shape, and so forth constitute a unique "expression of an idea" subject to the protection of copyright and our own moral judgment.

There are legal safeguards against rip-offs, but they are slow and inefficient at best. There are much more effective and immediate methods available, and "they is us." Two steps are required: (1) Carefully distinguish the flowers from the weeds; and (2) act on that distinction. We can support originality and creativity in what we write, say, and buy — or we can allow the weeds to take root and take over.

That's our garden out there. And it's time we tended it.

Jon Freeman is Creative Director of Free Fall Associates, a development team whose newest games, ARCHON and MURDER ON THE ZINDER-NEUF, are available from Electronic Arts. Other titles from Jon include TEMPLE OF APSHAI and CRUSH, CRUMBLE, CHOMP, and TAX DODGE.





NAME:	Flying Tigers
TYPE:	Strategy
SYSTEM:	Apple II/ Plus
FORMAT:	Disk
AUTHOR:	David Wesely and
	Stephen Goss
PRICE:	\$29.95
PUBLISHER:	Discovery Games 936 W. Hishway 36 St. Paul, MN 55113

Ace attempted to bank left, while firing at the tail of the 'Sally'. Static erupted in his ear. Tex has been hit! He fired at the Nip bomber and broke off contact with a quick dive. The 'Nate' on his tail missed, as Ace pushed forward on the throttle. The static that was his lifeline to his buddies bit into his ear again, as Red announced, "Got one, Ace!"

It's December, 1941 and your meagre squadron of P40C Tomahawks is outnumbered, as usual. It seems like the "Nips" always have the advantage in firepower, as indeed they did in pre-World War II China and they do in this bi-level game. Flying Tigers (FT) has a strategic level, where you decide the best altitude, approach, angle of attack, and target for your formation to use in engaging the 8 fighters and 9 bombers of the enemy force. FT also has a tactical level where you have a graphic cockpit window view of the enemy. In this phase, you may use either the keyboard, joystick, or paddle to control the plane.

Using the strengths of your equipment as a guideline (as described in the small white booklet of the documentation) and the summary of the Flying Tigers' actual historical strategy (as described in the tan booklet), it is actually possible to win the game without resorting to the tactical level. It costs lots of wingmen, though. As you win, you are able to select better and more effective planes your choices are: 1) P40C Tomahawks, 2) P43A Lancers, 3) P66 Vanguards, 4) Mohawk IVs, 5) P400s and 6) Hurricanes. Of course, each

plane has a different effect on your potential enemy's planes. If you would like to try this strategy, I found that the Tomahawks and Lancers should always try to attack from above, since they cannot usually outclimb the Japanese fighter escort. Also, NEVER use a level approach (command AL) to attack the Japanese bombers when the fighter escort is at a higher altitude. It's invariably "sitting duck" time, if you do.

Although the game may be won in the strategic level, it was the promise of the tactical level with its cockpit view that attracted me to the game. Here is where I have some misgivings about the game. Although the documentation does say that the program will not allow you to dive or climb too steeply, it seems to me that you can barely climb at all. A friend and I tried repeatedly, using both joystick and keyboard controls, to force the plane to climb consistently, but continued to lose altitude. One wonders if the program is not weighted heavily against the kind of maneuverability we armchair aces fantasize about. In addition, it is exceedingly difficult to master this phase of the game, because every time the player is "shot down" in a dogfight (that is, graphics mode), he/she must reboot the entire program in order to play again. This is a very awkward design feature and it is to be hoped that it will be corrected in future editions.

One impressive feature of the game, once one figures out which

booklet or card tells what, is the documentation. The game designers have packed a bonanza of information on five small enclosures. A small white booklet describes the game situation in its historical context and gives a tour de force of both Allied and Japanese aircraft used during the conflict. This is supplemented by a glossy poster with line drawings of all of the aircraft described in the booklet. There is a card with loading instructions for the particular computer on one side and some very good strategic hints on the other.

There is a booklet on the various controls (joystick, keyboard, or paddle) with an appendix on Flying Tiger tactics that is most useful. Last and actually superceded by the program menu itself is a command summary booklet. My only criticism of the documentation is that it would have been more "user-friendly" if it were in ONE booklet with either a Table of Contents, Index or both.

Please note that there are some possible difficulties in loading the Apple II Plus. A friend had trouble loading the program on his 48K machine with integer firmware in place, but didn't have trouble loading it with a language card in place. Further, the documentation warns that the program will not load if there is a card slot #0. So, try removing those two cards or following the instructions in the documentation for replacing ROM chips and creating a "monitor card," If you're very experienced with dealing with the chips inside your computer.

In short, Flying Tigers is an interesting game that is not yet living up to its potential. It has many good features (the graphics mode, the bailout option, and the emphasis on each plane's strengths and weaknesses). The designers are to be commended for their attempt to cause players to think strategically BEFORE engaging in tactical combat. They are also to be congratulated for their attempt to create the feel of actually flying a plane and having the enemy in one's sights. I just can't figure out whether or not the game is a splendid failure or flawed success.

The siren sounded on the air strip once again, as Ace's squadron took to the air to shoot down the 'Sallys' and a 'Nate' or two prior to their attack on Kunming.

Dr. Johnny Wilson

NAME:	Space Station Zulu
TYPE:	Strategy
SYSTEM:	Atari 400/800/1200
	Apple II/IIe
FORMAT:	Disk (48k)/
	Cassette (32k)
#PLAYERS:	One
AUTHOR:	Dennis Shields
PUBLISHER:	Avalon Hill
	Baltimore, Maryland

SPACE STATION ZULU (SSZ) is

a humorous strategy game of space station defense. The Yargs are a peace loving race who like to study and investigate the galaxy they inhabit. After discovering the Xhapthon Star Drive, the Yargs became very deeply involved in space exploration. They established a number of outposts where their expeditions could resupply and relax without always returning to planet Yarg. Space Station Zulu is such an outpost. It has a 43 member crew and you are the Captain. The crew stand three month tours, in between which they are frozen in suspended animation. Shortly after an exploration ship left the station "Intruder Alert" sounded. Space Station Zulu's sanctity has been violated by unknown life forms!

The computer reports these aliens have three stages of growth: spore, larva, and adult. The creatures are scattered throughout the station and their numbers are increasing rapidly. Their favorite dish is "Yarg"!

As Captain, your job is to rid the station of all adult and larva alien life forms. There are 21 rooms lettered A through U; four docks numbered 1 through 4; and four passage tubes numbered 5 through 8. Access between chambers is through hatches

represented as small niches in the wall. Rooms S and T contain suspension freezers for the crew not currently on watch. Scattered throughout the rooms are ten different types of weapons, ranging from hammers to rifles.

You start the game with four robots, 16 Yargs awake, and 32 frozen Yargs. You can place the Yargs and robots in any rooms. Yargs are peace-loving and not good at fighting, so two or more Yargs should be placed in a room. Robots are good fighters and if all else fails can selfdestruct destroying everything in the room. But, you only have a total of four robots.

To unfreeze a Yarg in rooms S or T, one awake Yarg must be there with no alien spores, larva, or adults in the room. Rooms S and T are critical because you need to add crew to combat the aliens. Until you use a weapon you don't know whether it will kill the alien, have no effect, or worse — "make them grow"!

The best strategy is to use at least four Yargs to confront an alien. Try out as many weapons as you can to learn which do the most damage and use only those for the rest of the game. If all else fails, send a robot into a room full of aliens and self destruct. The game ends when all Yargs are dead or all aliens have been destroyed.

The graphics are simple, but close ups of individual rooms are very well detailed. Actions are portrayed with text statements rather than graphic displays. For example: "YOU KILL-ED HIM or MISSED"; "KILLED AN ADULT — DAMAGE: — NEEDED A — "; "WEAPON HAS NO EF-FECT"; or "WEAPON MAKES MONSTER GROW".

Despite this, the game is an excellent strategy situation. You won't win the first time, but keep trying. If you start to consistently win on the first level, try the other variation of "Hidden Monsters", or the "Difficult" or "Little Hope" levels.

Hosea Battles, Jr.

APPLE 21 11 MUST BE THE MEDICAL VESTICAL THE ODD 11 STATES AND A STATES AND A STATES 11 STATES AND A STATES AND A STATES 11 STATES AND A STATES AND A STATES 12 STATES AND A STATES AND A STATES 13 STATES AND A STATES AND A STATES 14 STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A STATES AND A STATES AND A STATES 15 STATES AND A STATES AND A

NAME:	Enchanter
TYPE:	Fantasy Adventure
SYSTEM:	Many
FORMAT:	Disk
#PLAYERS:	1
AUTHOR:	Mark Blank,
	Paul Lebling
PRICE:	\$39.95
PUBLISHER:	Infocom
	Cambridge, MA

You stand at a fork in the road, holding nothing but your spell book. Your mind is dazed from the immensity of recent events: from nowhere, you, a lowly novice enchanter, were summoned into the presence of the august Circle of Enchanters, and charged with an almost impossible task: to enter the domain of the powerful warlock Krill, and destroy him. As the dawn sun rises over the land, you draw a deep breath, choose your path, and trudge off along a dusty road.

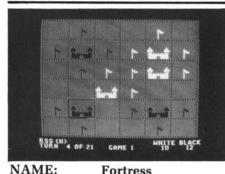
Thus begins THE ENCHANTER, the latest member of Infocom's stable of winners. It has all the touches you have come to expect (even demand!) of them: the great command parser, excellent text descriptions, intriguing puzzles, and coherent story line, to name a few. The one difference between this game and most of the other Infocoms is that you know exactly what has to be done from the very start. No guesswork about the ultimate objective is necessary, although that doesn't mean getting there is easy!

In this game, the use of magic is allimportant. You start out with four spells in your possession, and as you progress, you will find scrolls with other spells written on them (one per scroll). Some of these spells you can "write" into your spell book, thus making them re-usable. However, some are so powerful and complicated that you can't transfer them into your book, and so they can be used only once (the scroll vanishes after use).

As you wander through this land of enchantment, you will come across various creatures, some helpful, some not so helpful, and some that are merely red herrings. You will have to determine in which category each of these beings are, and act accordingly.

Also, your actions should be considered with great care: some situations have more than one solution, and choosing the wrong one will put the game hopelessly out of reach. It's always best to save a game before experimenting, and this one is no exception. All sorts of unpleasant things (such as being rated a -10 "menace to society") can happen when you start messing around with magic.

Food and water are also important, as well as sleeping: periodically throughout the game, you will be reminded of your body's physical



	1 01 11 0 3 3
TYPE:	Abstract Strategy
SYSTEM:	Apple II/Atari
FORMAT:	Disk
#PLAYERS:	1 or 2
AUTHOR:	Jim Templemen/
	Patty Denbrook
PRICE:	\$34.95
PUBLISHER:	Strategic
	Simulations
	Mountain View

Mountain View, CA FORTRESS from Strategic Simulations, is one of those games that you can learn to play in five minutes and spend years learning to master. It combines simplicity of rule with infinite strategy to provide a fastmoving, yet thought-provoking game.

The object is simple: control more territory at the end of the game than your opponent does. This is accomplished by placing fortresses on the playing field. A fortress can control up to five squares at one time: the needs, and woe unto you if they aren't satisfied! Finding a water supply and something edible at the beginning of the game is a must.

There are also some rather neat tieins with the Zork series. If you've played ZORK III, you might recall Scenic View 4, the sacrificial altar and monstrous creatures. Well, you'll learn a little more about them in this game, maybe more than you'd like to! You may also come across a vaguely familiar person in one of the Mirror Rooms.

THE ENCHANTER is a lot of fun to play, especially with some of the deft touches of humor here and there throughout the game. In terms of difficulty, I would rate it as being harder than Planetfall, but not as hard as Suspended or the Zorks.

Bottom Line: Another typically excellent game from Infocom, and not to be missed.

Scorpia

one on which it is established, and the four squares adjacent to it in the N,S,E,W positions (obviously, corner fortresses will control less territory).

The action takes place on a 6 by 6 grid. You and your opponent alternate moves, placing new castles on the board or fortifying existing ones. Each existing castle can be fortified twice, making for 3 levels of fortification in all. The stronger a castle is, the more likely it is to control the surrounding territory.

If the squares surrounding a fortress are not under equal influence by your opponent, your flag is planted on them, to indicate control. When an empty square is adjacent to the castles of both players, it will be given to the one with the stronger influence on the square. If the influence is of the same strength, neither player can claim the square.

Castles can also attack and destroy each other. Two castles immediately adjacent to each other are considered to be "in combat". If their strengths are equal, they are simply under attack. However, if one castle has more power in terms of fortifications and the support of other nearby castles, then the enemy fortress will be removed and the victorious player's flag will be planted on that square.

The standard game is 21 moves by each player. However, there is an option to change the number of moves to be anything from 1 to 54. This change is temporary, and will revert back to standard the next time you boot the disk.

You can play the game with a human opponent, or any one of six computer opponents. Each of these computer opponents has its own strategy and method of playing the game. Further, it is possible for these computer players to learn from the games, and therefore improve their own play. This is accomplished by writing the results to a separate save disk. You can also record the history of your play (most recent 30 tournaments) as well as that of the computer players. You can even create and "train" your own computerized opponents, and SSI is running a contest to determine the best computerized players.

The documentation that accompanies the game is a short, but welldone booklet that contains the basic information, as well as some strategy advice, and a brief "walk-through" to familiarize you with the play.

FORTRESS comes on a dual disk: one side contains the Apple version and the other side has the Atari version. Both versions are identical, except that the Apple game has an on/off option for the sound effects. With either machine, you can use the keyboard or the joystick to move around the playing field.

Bottom Line: If you like strategy games, this is one you'll want to have!

Scorpia



NAME: Secret Agent TYPE: Hi-res Adventure SYSTEM: Apple II/ FORMAT: Disk #PLAYERS: One PRICE: \$32.95 PUBLISHER: Jor-And Glendale, CA

Secret Agent grabbed my attention as soon as I booted it up. Even though there is no color the detailed hi-res graphics and animation are welldone, interesting, and entertaining.

As is common to these types of games, very little information is obtained from the written instructions. You are able to use two word responses like "go door" or "unlock door". You use single letters for directional movement (i.e. N.S.E.W). There is also a save game feature.

You carry a watch throughout the game and you access it by command to see how much time you have left. As you probably realize the time left becomes critical towards the end of the game (I believe you use up six minutes each time you give the computer a command). Time is lost in trying to solve the problems. My first two attempts to finish the game resulted in time running out. To finally finish the game I had to start over from the beginning and pick all of the best "paths" to get to the finish in the alloted time.

The game is very playable. My previous encounters with games of this type sometimes left me stuck in situations that to me had no logical answer in relationship to the game scenario. The answers or actions required in Secret Agent, while hard, are logical to the surroundings. As always, use your common sense.

Oh, and by the way, good luck in the maze!

James A McPherson

ON VACATION

Silicon Cerebrum, The Learning Game, and Chip & Ferb are on vacation this issue. They will all be back in the February issue.

TAKING A PEEK (Cont.)

Software Entertainment Company 537 Willamette St. Eugene, OR 97401

> **STELLAR 7:** Best version of a "Battlezone" game we have seen for the Apple. You control the Raven, an anti-grav tank as you fight on a series of planets with differing enemy units. Apple (C-64 before Christmas). \$34.95.

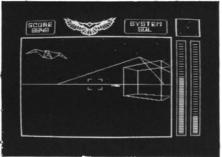
Strategic Simulations Inc. 883 Stierlin Rd. Bldg. A-200 Mountain View, CA 94043-1983

PROFESSIONAL TOUR GOLF: A golf game which pits famous or not-so-famous (you can key data in that will create a golfer in your image) golfers on two different courses. Included are Pebble Beach and a course containing famous and difficult holes from around the world, such as Augusta National, Merion, and Oakmont. Apple and C-64. \$39.95.

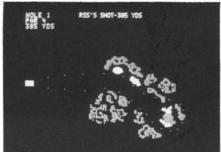
QUEEN OF HEARTS: SSI's first arcade game. They should stick with strategy games. QOH is a video pinball game that isn't as interesting or as smooth as other popular pinball games such as PINBALL CONSTRUCTION SET, DAVID'S MID-NIGHT MAGIC, or RASTER BLASTER. Apple and Atari. \$39.95.

Task Force Games 1110 N. Fillmore Amarillo, TX 79107

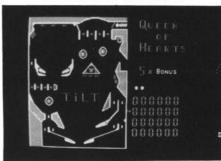
> SURVIVAL: A game for one to six players in which players compete against the hostile environment (rather than against one another) in an attempt to travel 340



STELLAR 7



PROFESSIONAL TOUR GOLF



QUEEN OF HEARTS

kilometers to safety. Four scenarios. Atari cassette. Price not listed.

WAR OF THE WORLDS: Based on their board game of the same name. The screen shows a map of London at the turn of the century. Each turn Martians land in their Cylinders. Tripods emerge and ravage the countryside. Your goal is to destroy the martians. Atari cassette. Price not listed.

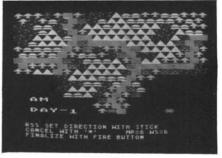
Xerox Education Publications 245 Long Hill Rd. Middletown, CT 06457

> CHIVALRY: A combination board/computer game for the Apple. Designed for the whole family, Chivalry features 20 different games based on the days of chivalry (jousting, tournaments, etc.). Disk, gameboard, playing pieces, poster, rules. \$49.95.

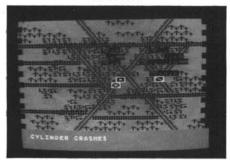
STICKYBEAR BASKETBOUNCE: A multilevel computer game for the whole family, with emphasis on the children. Players attempt to catch bouncing bricks, doughnuts or stars before running out of baskets. Apple. \$39.95.

STICKYBEAR OPPOSITES: A game that teaches opposites (up/down, full/empty, in front/behind, etc.) to 3-6 year olds. Apple. \$39.95.

STICKYBEAR SHAPES: Helps 3-6 year olds learn to recognize shapes of common objects. When the child make a correct choice, the big, bright picture comes alive with animation. Apple \$39.95.



SURVIVAL



WAR OF THE WORLDS



CHIVALRY

TELE-GAMING (Cont.)

moves by using their own boards (set up next to their home computer). Often, the regular game rules are slightly modified in order to compensate for long-distance play. For example, in online "Monopoly" each player has a list of game cards. Using the dice-rolling function available in GameSIG's online conference area, the players roll the dice, in turn, to choose their next cards. Who owns what and how much money has been spent is noted by the referee.

Chess is yet another very popular game played online in GameSIG. "Chessnuts" have the choice of playing in real time in the conference area, or posting their moves in messages on the electronic bulletin board. The players are very enthusiastic about this new type of chess playing, and have even been competing in a GameSIG chess tournament, begun last May. If you'd like a game of chess, it doesn't matter where you live or what hours you keep. You can simply issue a challenge via the bulletin board, and quickly begin a game with an opponent who may be thousands of miles away.

CompuServe is one telecommunications service that is committed to presenting interactive multi-player games for its subscribers. Rumor has it that another, much expanded, version of "MegaWars" is in the works. The new scenario will tranform the shoot-em-up aspects of the game into complex space battles involving the capture and development of planets. Other projects, including an MP fantasy role-playing game, are on the horizon. (To find out about subscribing to CompuServe, call (800) 848-8199 or (614) 457-8650.)

Are multi-player games the wave of the future? I think so. Consider the two aspects of "telecommunications." The "tele" part is innovative and exciting, but the "communications" part means human interaction, even friendship. And that's a nice thought for this holiday season.

Patricia Fitzgibbons ('Nightie' — 72145,42) is one of two sysops on Compuserve's 'GameSIG'. The other is Scorpia.

NORTH ATLANTIC '86 (Cont.)

ters) at bases and on appropriate ships, and executes searches automatically. After removing this major operational decision from the player, the designer has introduced a new one - most planes which execute strikes can be outfitted with bombs or alternate armament (air-to-air missiles for fighter bombers and air-to-surface missiles for bombers). One can also execute bombing attacks as either a base attack (destroying enemy supply) or a ground support attack (aiding the upcoming infantry combat). Finally, strikes with air-tosurface missiles can be given a "stand-off" range. This allows the strike force to launch the attack from up to 300 km (3 squares) from the enemy task force. The missiles then penetrate to the task force alone. CAP, flak, and electronic jamming will attempt to thwart the attack, but the bombers themselves will (hopefully) not come under fire.

Missiles, missiles, and more missiles! Everyone has missiles in this game. Surface ships have surface-to-air (SAM) missiles, antishipping missiles, and anti-submarine missiles. Aircraft have air-toair and air-to-surface missiles. Submarines have anti-shipping and antisubmarine missiles. Missiles have ranges from 10 km for some air-to-air missiles (these are just factored into dogfight combat) up to 300 km for some anti-shipping missiles. Surfaceto-surface gunnery combat is often anti-climactic to missile attacks between task forces which are still one square separated.

NA86 does provide a good evaluation of the capabilities of the combatants, and most contemporary forces and weapons are included. The NATO player has seven types of planes. The three standard carrier planes; the F-14 Tomcat (remember the Libyan fighters over the Gulf of Sidra?), the A-6 Corsair, and the A-7 Intruder are all there. You also get the F-15 and F-16 fighters, the British Tornado fighter-bomber, and the AV-8B Harrier jump-jet used by the British Navy and the U.S. Marines. The seventh NATO plane is the C-141 Starlifter; this cargo plane can play a pivotal role by airlifting troops or supplies to a threatened base, and even by dropping paratroops on enemy territory. The Soviets have a similar inventory of six planes; a fighter (MIG 23), a fighter-bomber (SU 24), two bombers (TU 22M and TU 16), a jump-jet on the aircraft carriers (YAK 36), and a cargo type (AN 12).

Differentiation in surface ships has similar detail. Everything from nuclear aircraft carriers to troop transports are present (and are given correct weapons systems). There are eleven different types of NATO transport ships and eight different NATO destroyers. Differences between classes of destroyers may be as small as the type of anti-submarine missile carried, but the differentiation is still there. If you're interested in what we've got in the modern Navy (as well as our best guess on the Soviets), this game has it all.

Playing The Game

This is not an easy game to master. If you don't know the difference between an AMRAAM and a Flogger, you'll learn alright; but you'll lose a lot of ships and planes doing it. The game provides two short scenarios which will be invaluable training aids before you tackle either of the campaign games (thank goodness for "Save Game" options, the campaigns are 122 and 252 turns long). In solitaire play, the computer handles the Soviets, and plays them very well even though they have the burden of the attack early in the game. To really enjoy NA86, you need to do some homework. Make up some tables of unit types and capabilities; those provided on the player-aid card are useful but fragmentary. Study them, and then play a short scenario until you're confident that you know the capabilities of different units.

Playing the NATO forces in the campaign game is a real test of your mettle. The Soviets start with considerable superiority at sea and overwhelming air power. I don't care

SCORPION'S TALE (Cont.)

the fact that walls may not always be what they seem.

Sooner or later, you'll make your way to the bottom of the volcano. Here you will find a hot-air balloon. Now, if you could just figure out a way of blowing up the balloon, you could probably go places. It's not all that difficult; remember, *hot*air balloon.

Once aloft, just wait awhile, and you'll come to a ledge. Look around carefully before going anywhere, or you may find the balloon going on its way without you. The ledge has one treasure, and the library another, although the second one is not immediately obvious.

Back in the balloon, wait some more and you will eventually rise to the Wide Ledge. Again, look around before leaving the balloon. This time, no treasure is immediately evident. However, there might be something in that box in the Dusty Room, if only you could get it open. Examine the box carefully, and you will notice a brick-shaped hole in it.

It won't take you long to figure out that this is where the brick from the Marble Hall goes, but what to do after that is another matter. You'll need some string, that's certain. Just make sure you don't blow yourself away!

Now, you're getting close to the endgame, but you still have a few things to do before that. One of them is visiting the Oddly-Angled Room, which is one of the most treacherous and devious mazes ever devised. You'll want to save the game before going any further here; one mis-step and you could be hopelessly lost.

Move around until you find the club, and make sure that you look at the club, because it's a valuable clue to the nature of the maze. Another clue is the shape of the windows on the floor. Taken all together, these clues should help you discern the true nature of the maze, and the writing on the club should give you an idea of what you have to do here. Be persistent; you may not do it exactly right the first time, but that's why you saved the game before you started. Remember to hang on to the bat.

That about does it as far as prelim-

inaries go; you should be ready for the endgame now. First, you have to get past the lizard head in the Guarded Room. This should be no problem, if you did the right thing back in the Pool Room. Go from the Guarded Room directly to the Aquarium, where you have to deal with the baby sea serpent. It's a little bit tricky, but some experimentation with the bat should help you find the solution.

Now it's off to the Wizard's Workroom. There are three stands here, each one a different color. Those colors ought to remind you of something, at which point you should do the obvious. This will cause a black sphere to appear. Take that into the Pentagram Room.

Properly used, the black sphere will help you summon (in case you hadn't guessed) a demon. Listen carefully to what he has to say. When you've satisfied his demands, you can ask for anything you want. What you want is something that will help you to move the Menhir statue. Meditate on that for awhile; only one thing will work. Once you have it, go to the Menhir Room and move the statue. Get the item, then return to the Oddly-Angled Room.

Go downstairs to the Cerberus Room, where, naturally, Cerberus is waiting. Fortunately, you should be able to easily handle this monstrous dog, thanks to the item from behind the Menhir. Now go on into the Crypt. This is the end of the game; there is one thing you have to do here, but I'll keep you in the dark as to what that is. When you've done it, you'll find yourself on the landing to the Endless Stairs of Zork III.

.....

While you ponder that, I'll see what the regulars are having, now that the stores have closed.

PLANETFALL: The key isn't that hard to get; the solution is an attractive one. Been to the Tool Room yet? ALI BABA: Go backwards from the Succubus Room; you will get to the Princess eventually. ULYSSES & GOLDEN FLEECE: Only listening to the Siren's Song will get you to the fleece. Remember your mythology! PRISONER II: A keyhole needs a key. If you've been taking the easy way out, this is the time to move around instead. And now, I'll see you next year (!), when the feature will be Zork I. In the meantime, my very best wishes to all of you for a joyous holiday and a Happy, healthy (and adventure-filled) New Year!

Scorpia (74045,221) is one of the two sysops on Compuserve's 'GameSIG'. The other is Patricia Fitzgibbons.

You can send you adventure game questions to Scorpia via any of the following modes: Compuserve (email 70001,1263); The Source (ST1030); Pony Express; Scorpia, 1319 Second Ave., Suite 540, NY, NY 10021.

ERRATA

Oops. Hope you are not still trying to find the ladder on the west wall in Zork III. In Scorpia's last column (CGW, Oct. '83) she indicated on pg. 46, paragraph two, that you need to move the ladder on the west side to the hole. Actually the ladder is on the east side. Scorpia caught the error before production but her corrective missive was lost in "editor-land." Sorry readers. Sorry Scorpia.

STATEMENT OF OWNERSHIP MA	ANAGEMENT AND CIRCUL	ATION			
A TITLE OF FUELICATION	18. PUBLICATION N	D 2 DATE OF FILING			
Computer Gaming World	074466	6 7 9/28/83			
FREQUENCY OF ISSUE	JA NO OF ISSUES FUELIS	HED SE ANNUAL SUBSCRIPTION			
six times a year	6	\$12,50			
COMPLETE MAILING ADDRESS OF KNOWN OFFICE OF FUELICATIO	A (2040), Cop. County, State and Life (Codes) (New president)			
1337 N. Merona St. Anaheim, CA 92801 COMPLETE MAILING ADDREES OF THE WEADDUANTERS OF GENER	AL BURNESS OFFICES OF THE PUR	B, TOPER (But primer)			
same					
FULL NAMES AND COMPLETE MAILING ADDRESS OF PUBLISHER. E	DITOR, AND MANAGING EDITOR /	The loss MUET NOT be bask!			
UBLIEVER (News and Complete Multing Address)		en de chine set de			
Russell Sipe P.O. Box 4566 Anahete	, CA 92803-4566				
ECITOR (News and Complete Making diddress)					
sane					
AANACING EDITOR (Auser and Complete Multing Address)					
sane					
1. OBMOR (2) around 80 a composition, to sums and address must be reased aware a bridging of persons a more of small amount of social fit out awar to press. If would by a partnership or other amount provide fitm, its same tion is published by a neuroinfit argumentation, or same and address must be press to published by a neuroinfit argumentation.	d by a corporation, the names and add				
Golden Empire Publications Inc.		ILING ADORESS			
	P.O. Box 4555 Anahein, CA 92803-4556				
(see attached)					
KNOWN BONDHOLDERS, WORTGAGES, AND DTHER SECURITY H AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES IT New	OLDERS OWNING OR HOLDING 1 P	INCENT OR MORE OF TOTAL			
FULL NAME		ILING ADDRESS			
None					
FOR COMPLETION BY MOMPHONIT OR CARIZATIONS AUTHORIZED TO ANOTAL TARGET AND THE AUTHORIZED TO ANOTAL TARGET ON THE AUTHORIZED	entet status for Faderal rhubma tas pur	um 423-12 DMW andys anne (Chark ann) publisher must dubert copiesettor g ma thatment i			
0	AVERAGE NO. COPIES EACH	ACTUAL NO. COPIES OF EMEL ISSUE PUBLISHED NO AREST T FILING DATE			
EXTENT AND NATURE OF CIRCULATION	12 MDATHS	FILING DATE			
EXTENT AND NATURE OF CIRCULATION	AVERAGE NO COPIES LACH ISSUE DURING PRECEDING 12 MONTHS 8250	10,500			
EXTENT AND NATURE OF CIRCULATION		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
EXTENT AND NATURE OF CIRCULATION A TOTAL NO. COPIES (WY Ans Ann) A RAID CIRCULATION	8250	10,500			
EXTENT AND WATURE OF CIRCULATION A. 1074. NO. CONTEX INV BAIL B. 1074. NO. CONTEX INV BAIL B. AND CIRCULATION D. Data introduct surt and an extension, costs endous and escures asis 2. Mail Subsergment	8250 5150	10,500			
E TOTAL NO. CONCEL INV AND ANNI OF CHOOLANTON I TOTAL NO. CONCEL INV ANN ANNI I TOTAL NO. CONCEL INV ANNI ANNI I See Through Subsectional Cancel Concel Anni Anni I See Through Subsectional Cancel Concel Anni (1985) I TOTAL PAGE CIRCULATION (See of 1981 and 1985)	8250 5150 1800	10,500 7,826 2,189			
ETTERT AND INATURE OF CIRCULATION TOTAL NO. CONTEL INV AND EAH TOTAL NO. CONTEL INV AND EAH TOTAL NO. CONTEL INV AND EAH Sent Invigor Invent and Earline, and Eah Sent Invigor Invent and Earline, and Eah Total, PAUD CIRCULATION (Sent of 108) and 108): TOTAL PAUD CIRCULATION (Sent of 108) and 108):	8250 5150 1800 6950 500	10,500 7,826 2,189 10,015			
ETTERT AND INATURE OF CIRCULATION TOTAL NO. CONTEL INV AND EAH TOTAL NO. CONTEL INV AND EAH TOTAL NO. CONTEL INV AND EAH Sent Invigor Invent and Earline, and Eah Sent Invigor Invent and Earline, and Eah Total, PAUD CIRCULATION (Sent of 108) and 108): TOTAL PAUD CIRCULATION (Sent of 108) and 108):	8250 5150 1800 6950	10,500 7,826 2,189 10,015 150			
ETTER AND	8250 5150 1800 6950 500 7450	10,500 7,826 2,189 10,015 150 10,165			
ETTER A AD AND/INF OF ORIGINATION ETTER A ADDRESS OF AN ADDRESS OF A	8250 5150 1800 6950 500 7850 50 50	10,500 7,826 2,189 10,015 150 10,165 285			

Based on first mailing of July-Aug 83 issue.



WHIRLWIND (Cont.)

firepower, and range displayed along the bottom of the screen. In addition to these factors, the unit also has activity points which are used up by movement and combat. The activity points are not shown, but if a unit is nearing the end of its allocation then the cursor will turn red. Movement is much the same as in other games. except no diagonal moves are allowed and you may move the same unit as often as you want until all of the activity points ar expended. During the movement phase the computer does not just sit there waiting for you to do your thing. It's forces are lying hidden and just waiting for you to come into range. When you do they will become visible and probably open fire. When all movement is complete then press the start key again and you will move to the Combat Phase.

In the COMBAT PHASE, you order your units to fire. To do this you move the cursor over the firing unit and press the fire button. You then move the cursor to the target and press the fire button again executing your fire order. The most frustrating part of this game is killing the enemy. At the higher levels they can be extremely tough and take hit after hit without being destroyed. Of course there are range and lineof-sight restrictions and your unit must have activity points left from the movement phase. You should have a good idea of what combat you want to do before entering this phase as all during the phase enemy long range artillery will be falling. The barrage ends when you are done with combat and you press the *start* key to move to the ASSAULT ORDERS PHASE.

In this phase the infantry and engineers really shine. They may be ordered to assault any enemy units to which they are adjacent. In addition to assaults the engineers may, daring this phase, be ordered to rebuild bridges which have been blown up. If the bridges are not rebuilt, the tanks will have a hard time crossing the rivers and without them you can forget about taking the town. Tanks may also be ordered to assault, but they will execute an overrun rather than an assault. When all assault orders have been given then press the start key and, you guessed it, you move into the ASSAULT PHASE.

In the assault phase all assault, bridge building, and overrun orders are executed. This phase differs from the combat phase in that the combat phase simulates combat from a distance while this phase is the close up, bayonette to the body, combat. Losses will be much heavier in this phase. The assault phase is the last phase you execute. After this the computer will go through some actions including movement and firing at your units. At this time the computer may also begin its withdrawal

DISPATCHES (Cont.)

none of their numeric values overflow, that they have sufficient options to make for interesting play, that your model (if it is a simulation) is realistic! And then on top of all that, you have to make the graphics as good as arcade games because that's the standard players will compare you against. Hmm . . . maybe I should write arcade games instead.

Dan Bunten is the author of COM-PUTER QUARTERBACK, CARTELS & CUTTHROATS, and CYTRON MASTERS all available from Strategic Simulations. He is the lead designer of the Ozark Softscape group that wrote M.U.L.E. and SEVEN CITIES OF GOLD; both of which are available from Electronic Arts.

or execute its counterattack. If it is a counterattack, then new enemy units will enter from the top and bottom of the screen, at which time you should be prepared for some heavy fighting.

At the end of each turn your victory condition will be displayed and you are given the opportunity to save the game. To win, you must have at least one unit in the town and no enemy units east of the final stream or south of the forest above the town. You must hold this position against counterattack for two consecutive turns. There are five levels of victory, with the best possible being a breakthrough at level 3 with no strength loss to your units.

Although not as complex as some computer wargames, this game provides the elements of a good tactical duel. You have various units with each unit having different capabilities in movement, fire power and range. You have terrain with its various implications of defensive bonus and movement hinderance. You also have a very clear objective and a certain time limit in which to reach the objective. As in real situations, the enemy is hidden until exposed by movement or fire. The computer is a good commander and his forces are very tough. It takes a lot of work to beat the computer at the higher levels, but with luck, perhaps you will succeed and handle the vicious machine.

REACH/STARS (Cont.)

the opportunity to use that planet's production and the available global points (points unused by that players planets last turn) to develop that colony. The colony's production is based upon the population (P), the current industrial capacity (IC) and its current social level (SL) in the following manner:

Production = Px2 + (ICxSL)/16.

It may be used to build the industry up to the systems maximum, build space ships (explorers, transports, and starships), to raise the social level or the planetary environment, to develop more advanced starship designs, and to build planetary defenses. There are, however, limitations upon how fast certain factors (social level, planetary environment, technology research, and planetary defenses) may be increased which are simulated by set maximums which may be spent on these catagories per turn.

All of this production, though, carries a certain potential danger in games with the full set of variables. If the Nova option is used, then the probability of a star going nova is increased by massive research and development. While this is not mentioned in the rules, it soon becomes apparent as key systems begin to go unstable and must be evacuated. The risks of rapid development must be balanced against the immediate threat should you fail to develop while others do.

STRATEGIES AND TIPS

When dealing with computer opponents, it is important to remember its priorities. Firstly, it hates humans! It will attack a human player in preference to another computer player. Secondly, it hates a winner. Being in first place puts a poster with your face on the wall of every planetary post office. Thirdly, it hates other players with colonies in the same star system in which it has colonies. And finally, but far from least important, veteran level computer players will NEVER forget a player who has attacked one of its colonies! You might as well prepare yourself for a long and bloody war once you have trod upon a vet' colony.

Another factor that is critical to winning is to CONTROL YOUR POPULATION! If left to grow, a planet's population will soon reach the point where it is growing faster than you can ship them off-planet. Once this point has been reached, it is only a matter of time before the population exceeds the system's capacity by such numbers that it revolts (write off one colony). Roger Keating, one of the two responsible for RFTS design and development, recommends a population level in the mid-twenties but, for added safety from attack and the extra population production, I favor a population in the low thirties. This also makes your colony less subject to the effects of some random disasters. The key is, though, to stop it at a level where it is still manageable.

Speaking of excess population and what one can do with it, it is important to know that early in the game, when everyone is running around with tech level one starships, transports make very effective CSP (Combat Space Patrol—their job being to intercept enemy craft entering the system). They are so good, in fact, that I often use them to stake out promising star systems which I am not yet prepared to colonize.

To continue along this line of Tips, feel free to put token forces on good star systems early in the game. It will not drive off a determined attempt, but any non-explorer will destroy an unarmed explorer when it tries to search that system.

Conquered planets are also a pain. From the point of view of the exowner, he must try to re-take the planet as soon as possible if he is to have any chance. The new owner, on the other hand, is forced to hold the system with as many ships as he has available until he can land sufficient transports to hold the planet. (Fifty transports will make the planet all but invulnerable). But, remember, do not let the native population grow to out number your "colonists" by over two to one, or they could revolt against you. Finally, the Zenophobes! When these malcontents stop in a star system which has one of your colonies in it, it acts to isolate the colony from your available global supply points. More importantly, any combat which takes place in a system which contains a Zenophobe is much bloodier. If, therefore, you notice that one of your neighbors is being visited by one of these randomly wandering vagabonds, send a single ship over to pay your respects and watch the results.

RFTS is, after a little playing, a very user friendly game. Its instructions are, for having been written in a foreign language (Australian), quite understandable. The only exception to this rule is in the Save/Recover part of the first edition's rules. It states that you should press "C/R" to recover a saved game. This is fine, but unfortunately C/R, in Australian, means Control "R"-not carriage return. When this minor difficulty is understood, RFTS becomes a game nearly devoid of anything to complain about (other than the viciousness of the Veteran level computer players). The only real point of criticism which I have found with this game concerns the natural disasters. These are randomly visited upon you during the turn resolution, leaving you to discover them when you find that your colony has lost all of its industrial capacity. This would not be so bothersome if there was only a message of explanation accompanying these minor disasters. When asked, Roger explained that they could have been included, except for a lack of space. Hopefully future versions for 64K machines will include these.

CONCLUSION

In final analysis, RFTS offers features to be found in no other space game. Its great artificial intelligence and careful design could only be expected after Roger Keating's many successful designs for SSI (When Super Powers Collide series) and Ian Trout's long hours of work in development. My only hope is that RFTS is soon followed by more games of the same quality.

LETTERS (Cont.)

colors are likely to handle all of your color needs. As for Atari's eight shades apiece — that's a bunch of hooey. You never see more than eight colors on screen at one time for Atari (you can get that on the Commodore and then some) and if you want different shades or tints, you get them by simply adjusting the color knob on your television set.

Atari's player-missiles and Commodore's sprites are the same things — forms defined by a shape table in memory. The C-64 sprite does not take a lot of memory, and they can be mapped in hi-res by the really good programmers. It's a toss-up there.

From the lack of time Jon spends on the C-64 SID music chip, I suspect he does not understand it. Atari has a good music synthesizer, but Commodore has a better one. (I only wish it weren't so clumsy to activate. Poking things into memory takes a lot of time when you're programming.)



I've worked on every brand of micro-computer there is, and haven't found the perfect BASIC yet. Commodore's BASIC has some very good things about it, and some not so good things. The best thing about it is an on-screen editor better than anything else on the market. It is so good that one almost doesn't need a word processor program in order to write with it. Although integer variables are supported by the language. I almost never bother with them. The floating point variables are accurate enough. Try squaring some numbers on the Atari and taking their square roots again. With the Commodore, the square root of 4 is 2; with the Atari, it is either 1.9999 or 2.0001. It always bugged me when I owned the Atari that I couldn't do simple arithmetic. Commodore's BASIC has a few other good features - it is relocatable and redefinable. A couple of peeks and pokes take the language out of ROM and place it in RAM where you can make it do anything you want, including all the tricks of Apple's microsoft. You sure can't do that with BASIC on a cartridge. Commodore supports n-dimensional arrays ... and for naming files on the disk, it allows up to 16 characters, which can be alphabetic, numeric, or even punctuational. You get that kind of power on the Apple, but not on the Atari. The worst thing about Commodore BASIC is that variables are limited to two characters.

I fail to understand why Freeman has trouble understanding Commodore's documentation. I found it numbingly simple. The Programmer's Reference Manual (for \$19.95) is much more complete than the small guide that comes with the computer. How much does the Atari programmer's manual cost, and how complete is it? How about the hundreds of pages of Apple manuals? You can't get them for a mere \$20. In addition, there are now at least half a dozen books that explain how to use the 64 in infinite detail, ranging in price from \$6.95 to \$19.95. Buying one or two of them is not such a bad deal.

And, C-64 user groups are springing up like mushrooms after a rain. Anyone who wants a little help can join one without much difficulty.

People may have heard that Commodore disk drives are so bad that they all had to be recalled. This isn't true. One batch, released in August of 83 were recalled. How many thousands of cars has Ford recalled with safety defects? The fact that Commodore recalled the faulty drives when they were discovered, shows that the company cares about its public. I used my disk drive for a little over a year before needing even routine maintenance — a record none of my Atari using friends has been able to match.

Sure, people buying the 64 are novices. They're getting an awful lot for their money, and if they make any effort to learn about their machine, the value increases. When Apple first came out the people buying it were novices — the same for Atari — the same for Radio Shack. None of them offered a comparable value for the money.

Does the C-64 have flaws? Yes, but not the ones that Freeman cites. Using poke commands as the basis for all their graphic routines gets to be a real hassle! Not having a break key on the keyboard gets to be annoying. Some of the funny syntax of Commodore BASIC will drive somebody who is fairly proficient in Applesoft, Radio Shack, or Atari BASIC nutso. And there is a real tendancy to get OUT OF MEMORY errors when doing complex programming in BASIC.

On the other hand, the machine is rapidly being improved, and is growing in capability at an incredible speed. Already there are other languages available for it - how about FORTH, PASCAL, PILOT, and CP/M! I now have three of those and only wish I had the time to learn how to use them. The '83 releases have been improved to eliminate sparkle, and the keyboard has the finest feel this side of an IBM Selectric that I have ever seen on a home computer. Give the machine a real chance, Ion - Ithink you'll find that it is really the best value on the market right now.

> Ken St. Andre Phoenix, AZ

ULTIMA III (Cont.)

to finish the game. However, don't think that fewer levels mean easier dungeons! There are plenty of tricks and traps, as well as unfriendly creatures roaming around, to keep things interesting, not to mention difficult.

Of course, you won't be going down there empty-handed! Guild shops, although difficult to find, sell several useful tools, including keys, torches, gems and powders. Gems are magical items that show you a map of your surroundings. On the surface, they display the entire world; in dungeons, they show the entire level you're on. In either case, the party location is shown by a flashing dot. Naturally, you can only use the gems once. Powders negate time, freezing the actions of all creatures outside the party. This comes in handy when fighting a large group of nasty monsters, or when escaping from town guards after an unsuccessful theft attempt. Powders are, as you might expect, expensive, and can only be used once. Be warned, however: powders WILL NOT work in Exodus' domain! Transacting is extremely important in this game. There are people in every town who have clues for you; some you can get for free, others will cost you money. Visiting the Oracle, if you can find him, will be helpful in your quest. So is having a drink or three at the local pubs. Naturally, this means you'll be doing a lot of travelling around.

Transportation now comes in three forms: feet, horses and ships. There are only two places where you can buy horses, so you'll probably be walking most of the time when on land. Ships are initially manned by pirates; you will have to fight and defeat the crew to get the boat for yourself. However, sailing isn't quite the simple matter it used to be. Before, you could just go in any direction you wanted, now you have to keep an eye on the winds. You must sail in accordance with the way the wind blows, so if it's a North wind, you can't go North, or South if it's a South wind, etc. And, of

Speaking of moving, one of the more interesting features of the game is its use of "line of sight" displays. For example, if you are walking around a building, you can't see inside it, and if you stand at the doorway and look in, you see only a little bit of the interior. To view the entire shop, you have to step inside the door. And even then, you may have to go as far as the center of the room to see everything. The same is true of the outdoors. When walking through certain areas of particularly dense trees, all vou see is the little patch of land immediately surrounding the party; everything else is in darkness. And, of course, you can't see behind the mountains.



Your travels will take you to strange places, and you will find many mysteries to solve along the way. How does one get to Dawn, city of myths and magic? Where is lost Ambrosia? What secrets do the shrines hold? Is there a way past the silver snake, and, if so, what lies beyond? How do the Moon Gates work? And, perhaps most important, who or what is Exodus? Quite some intriguing questions to be answered! To help you along, the game comes with several useful items: a very well-done cloth map of the continent of Sosaria, two books of spells, one for mages and one for clerics, a handy quick reference card, and, of course, the basic instruction manual, which you should read before booting the game.

As with previous Ultimas, you will have to make a copy of the flip side of the disk. Once made, you will play from, and save to, the copy. All the characters you create (up to 20) will reside on that disk. Thus, any time before you actually begin play, you can disperse the current party and form a new one.

Now that we've looked at some of the good points, it's time to look at some of the more annoying features of this game. First, the beginning of game is rather noisy, and the little animated sequence, cute the first time, becomes tedious by the tenth time. There is no way around this; you have to sit through it every time you boot up the game. Second, while you can examine your entire roster of characters, you don't see any information beyond class, sex, race, character status (good, poisoned, dead, ashes), and whether or not he/she is in a party. So, you can't tell from the roster which characters have what equipment. You can only get the full list using the "Z" status command during play, and that only works for members of the current party.

Sailing by the wind was a good idea; unfortunately, it often becomes frustrating, as the winds tend to change quite rapidly. If the wind shifts were fewer and slower, it would make sailing more fun. As it is, the winds change about every five moves or so, causing frequent stops.

But the really disappointing thing, at least for me, is the very ending of the game itself. After all the fighting you go through to get to him, the actual dispatching of Exodus is remarkably calm and quiet. This was a very unexpected anti-climax; I had really been expecting something a little more spectacular.

Still, in spite of that, the game is excellent, and I am not in the least sorry that I bought it. The improvements over the previous Ultimas alone is worth the price of admission, and the game will certainly provide many hours of enjoyment (and frustration!).

Bottom line: Definitely not one to miss!

This review originally appeared in the Gamesig Archives of Compuserve and is reprinted here by permission.



R.I.D. was prepared with the help of SPEED STAT by SoftCorp International, Westerville, OH 800-543-1350

See page 54 for details on the Reader Input Device

٦

	Game Ratings							
8.05	Wizardry	Sir-tech	Apple		6.56	David's Midnight Magic	Broderbund	Many
7.94	Combat Leader	SSI	Atari		6.54	Ultima I	Cal Pacific	Apple
7.83	Mule	Electronic Arts	Atari		6.50	Sherwood Forest	Phoenix	Apple
7.57	Archon	Electronic Arts	Atari		6.47	Epidemic	SSI	Apple, IBM
7.42	Knight of Diamonds	Sir-tech	Apple		6.46	Ringside Seat	SSI	Apple, C64
7.40	Chess 7.0	Odesta	Many		6.45	Tactical Armor Command	Avalon Hill	Apple
7.26 7.25	Lode Runner Pinball Construction	Broderbund Electronic Arts	Many	Atoni	6.45 6.40	Worms Apventure to Atlantis	Electronic Arts	Atari
7.25	Survivor	Synapse	Apple, Atari	Atari	6.40	Tigers in the Snow	Synergistic SSI	Apple Many
7.24	Ultima II	Sierra On-Line	Apple,	Atari	6.39	Galactic Attack	Sir-tech	Apple
7.24	Miner 2049er	Big5/Microfun	Apple,		6.29	Paris In Danger	Avalon Hill	Atari
7.22	Jumpman	Epyx	Atari		6.28	Temple of Apshai	Epyx	Many
7.20	Bomb Alley	SSI	Apple		6.27	Mask of Sun	Ultra Soft	Apple
7.20	Zork Series	Infocom	Many		6.26	Swashbuckler	Datamost	Apple
7.15	Computer Ambush	SSI	Apple		6.21	Crush, Crumble Chomp	Epyx	Many
7.13	Murder on the Zinderneuf		Atari		6.20	Zaxxon	Datasoft	Many
7.09	Knights of the Desert	SSI	Many		6.17	Frogger	Sierra On-Line	Apple, Atari
7.05	The Cosmic Balance	SSI	Apple,	Atari	6.16	A2-PB1 Pinball	SubLogic	Apple
7.04 7.03	Blue Max Eastern Front	Synapse APX	Atari Atari		$6.15 \\ 6.11$	Cannonball Blitz A2-FS1 Flight Simulator	Sierra On-Line	Apple
7.03	Choplifter!	Broderbund	Mnav		6.07	Old Ironsides	SubLogic Xerox	Apple,TRS-80 Apple
7.00	Computer Baseball	SSI	Apple,	C-64	6.04	Robotwar	Muse	Apple
7.00	Guadalcanal Campaign	SSI	Apple		6.02	Way Out	Sirius	Apple, Atari
7.00	North Atlantic 1986	SSI	Apple		6.00	Cosmic Balance II	SSI	Apple, Atari
7.00	Operation Whirlwind	Broderbund	Atari		6.00	Empire of the Overmind	Avalon Hill	Many
6.98	Southern Command	SSI	Apple		6.00	Spy's Demise	Penguin	Apple, Atari
6.97	Olympic Decathlon	Microsoft	Apple		5.99	Swordthrust Series	CE Software	Apple
6.94	Shattered Alliance	SSI	Apple,	Atari	5.92	Time Zone	Sierra On-Line	Apple
6.93	Galactic Gladiators	SSI	Apple		5.94	Labyrinth	Broderbund	Apple
6.93	Legionnaire Star Blazer	Avalon Hill	Atari		5.87	Marauder	Sierra On-Line	Apple, Atari
6.93 6.92	Star Blazer Starcross	Broderbund Infocom	Apple Many	I	5.84 5.79	Close Assault A.E.	Avalon Hill Broderbund	Many Apple
6.92	The Quest	Penguin	Apple,	Atari	5.79	Aztec	Datamost	Apple
6.91	Castle Wolfenstein	Muse	Apple		5.77	Snack Attack	Datamost	Apple
6.91	Deadline	Infocom	Many		5.77	Torpedo Fire	SSI	Apple
6.91	The Warp Factor	SSI	Apple, 1	IBM	5.76	Tactical Armor Command	Avalon Hill	Apple
6.89	Necromancer	Synapse	Atari		5.76	The Arcade Machine	Broderbund	Apple
6.88	Cartels & Cutthroats	SSI	Apple		5.75	Battle of Shiloh	SSI	Many
6.87 6.87	Crisis Mountain Planetfall	Synergistic	Apple		5.70	Serpentine	Broderbund	Apple, Atari
6.86	Pursuit of Graf Spee	Infocom SSI	Many Apple		5.68 5.67	Andromeda Conquest Blade of Blackpoole	Avalon Hill Sirius	Many Many
6.84	Battle for Normandy	SSI	Apple, A	Atari	5.67	Missing Ring	Datamost	Apple
	Cytron Masters	SSI	Apple,		5.65	Invasion Orion	Epyx	Many
6.82	Germany 1985	SSI	Apple		5.56	Guns of Fort Defiance	Avalon Hill	Many
6.81	Championship Golf	Hayden	Apple		5.42	Axis Assassin	Electronic Arts	Apple
6.77	Galactic Adventures	SSI	Apple		5.25	Parthian Kings	Avalon Hill	Apple
6.76	Rendezvous	Edu-Ware	Apple		5.21	Hi-Res Golf 2	Avant-Garde	Apple
6.76 6.75	Shamus President Elect	Synapse SSI	Atari Apple	I	5.14	Golf Challenge	Sierra On-Line	Atari
6.73	Star Maze	Sir-tech	Apple		5.14 5.11	Telegard Conglomerates Collide	Avalon Hill Rockroy	Many Apple
6.71	Dnieper River Line	Avalon Hill	Many		5.03	Galaxy	Avalon Hill	Many
6.67	Computer Gin Rummy	Datamost	Apple		4.91	Major League Baseball	Avalon Hill	Many
6.66	Astro Chase	First Star	Atari		4.88	Wizplus	Datamost	Apple
6.66	Napoleon's Campaigns	SSI	Apple		4.83	Tanktics	Avalon Hill	Many
6.65	Escape from Rungistan	Sirius	Apple		4.78	Clipper	PDI	Atari
6.65	Geopolitique Witness	SSI Infocom	Apple Many		4.75	Pie-Man Cauarna of Engited	Penguin	Apple
6.61 6.60	Ali Baba/40 Thieves	Quality	Apple, 1	Atari	$4.65 \\ 4.63$	Caverns of Freitag Twerps	Muse Sirius	Apple Apple Atari
6.58	Suspended	Infocom	Many	Main	4.63	Kid Grid	Tronix	Apple, Atari Atari
6.57	Hard Hat Mack	Electronic Arts			4.22	Fore!	Epyx	Apple
						0	100 K V 17710	

Six games that'll make your ATARI® the apple of your eye.

Playing games is probably one of the main reasons you bought an ATARI® home computer. When it comes to games, there are none more sophisticated, thoughtprovoking, challenging - and just plain fun - than the strategy games from SSI.

We made our considerable reputation by producing some of the finest games for the Apple® To make sure all you ATARI owners out there don't get left out, we're converting as many of our games to your favorite computer as we possibly can.

Here are just six of our ever-increasing line of ATARI games. Best of all, they're all waiting for you at your nearest computer/ software or game store - today!

Our games are covered under a 14-day "satisfaction or your money back" guarantee.

-

Take to the

skies with

your trusty

Sopwith

Camel or

Fokker DR-1

or any num-

ber of World

War I planes.

between two

You can set

up duels

planes or

stage grand

involving as

many as 20

On 40K disk

planes.

\$39.95

This historical simulation of four great World War II carrier battles is so thorough and realistic, it takes into account every last ship and plane! It is one monster of a game in scale, yet it is so easy to play On 40K disk \$59.95

Δ

A simple and

classics such

actually learns

time to be-

ultimate

\$34.95

opponent

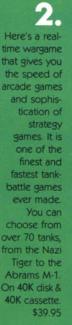
On 40K disk

as chess.



ATARI is a registered trademark of Atari, Inc APPLE is a registered trademark of Apple Computer, Inc.

California, call 800-772-3545, ext. 335.



5. Finally, a true video pinball game for all you pinball fanatics. It boasts all the features of a real pinball game - from sequential play right down to the bells and buzzers. We must forewarn you: it is totally addictive On 48K disk \$34.95















0 The army of the future is comprised not of men but of machines: the Cybernetic Electronic Devices. They are deadly but mindless.

It is up to you as the Cytron Master to lead them to victory in this arcadestyle game. On 48K disk \$39.95; and 32K cassette \$34.95









Screen displays are not necessarily from the Atari® Games are for the Atari® 400/800/1200.

STRATEGIC SIMULATIONS INC If there are no convenient stores near you, VISA & Mastercard holders can order direct by calling 800-227-1617, ext. 335 (toll free). In

To order by mail, send your check to: STRATEGIC SIMULATIONS INC, 883 Stierlin Road, Bldg. A-200, Mountain View, CA 94043. (California residents, add 6.5% sales tax.)

WRITE FOR A FREE COLOR CATALOG OF ALL OUR GAMES.



There were 231 RIDs turned in by press time for this issue. We plan in a near future issue to share some of the game design ideas that we asked about in "Misc. question A" in RID 10.

Newly rated games and updated game ratings are listed with **bold type** in the table on page 52.

GAME RATING

The table on page 52 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 -11 (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.

GAMES

- 1. Wizardry (Sir-tech)
- Combat Leader (SSI) 2
- 3. MULE (Electronic Arts)
- 4. Archon (Electronic Arts)

NORTH ATLANTIC '86 (Cont.) how good you are, they will capture

the Faroes within the first three days. The real test will come as the Soviets next move on Iceland. If you can stop them, you're doing very well. Even if Iceland is lost, you can still win the game. As the U.S. Navy arrives on the scene piecemeal and the superior quality of the NATO aircraft eats away the Soviet numerical advantage, the tide will slowly shift. The real test is to show the will to keep playing through the lean times. In the first weeks, the Faroes will fall, Scapa Flow (the British base in northern Scotland) will be bombed unmercifully, NATO morale will begin to drop, and naval losses will be high. It's difficult as a new player to avoid the conclusion that you're just incompetent as a commander, but stick with it; it's not over until it's over!

- 5. Knight of Diamonds (Sir-tech)
- Chess 7.0 (Odesta) 6.
- 7. Lode Runner (Broderbund) Pinball Construction Set (Electronic Arts) 8.
- 9. Survivor (Synapse)
- 10. Ultima II (Sierra On-Line) 11. Miner 2049er (Microfun)
- 12. Ultima III (Origin)
- 13. Reach For The Stars (SSG)
- 14. Broadsides (SSI)
- 15. Wings (SSI)
- 16. Fighter Command (SSI)
- 17. Beach-Head (Access)
- 18. Gangbusters (Prickly)
- 19. Flying Tigers (Discovery)
- 20. Space Station Zulu (Avalon Hill)
- 21. The Enchanter (Infocom)
- 22. Fortress (SSI)
- 23. Secret Agent (Jor-And)
- 24. Murder By The Dozen (CBS)
- 25. The Bilestoad (Datamost)
- Music Construction Set (Electronic Arts) 26.
- 27. NATO Commander (MicroProse)

- 28. The Alpine Encounter (Ibid)
- 29. Pharaoh's Pyramid (Master Control)
- 30. Caverns of Callisto (Origin) 31. Capture The Flag (Sirius)
- 32. Gruds in Space (Sirius)

ARTICLES

- 33. Inside the Industry
- 34. Dispatches
- 35. Ultima III Review
- 36. Name of the Game
- 37. Operation Whirlwind Review 38. Reach for Stars Review
- 39. Broadsides Review
- 40. Tele-Gaming
- 41. Atari Arena
- 42. Commodore Key
- 43. What computer do you own? 1= Apple; 2 = Atari; 3 = C64; 4 = Vic-20; 5 = IBMpc; 6 = CoCo; 7 = Other (Please specify)

Use A, B, C for "letter to editor" space. (If you write a letter to editor, please include your name, hometown, and state.

GAMESMANSHIP Largest Selection of **Computer Game Software** SOUTH ... Anywhere COAS1 VILLAGE • Arcade • Adventure • Strategy Mercantile Blda.

Mail & Phone Orders Accepted

3850 SO. PLAZA DRIVE SANTA ANA CALIFORNIA 92704 (714) 557-2447

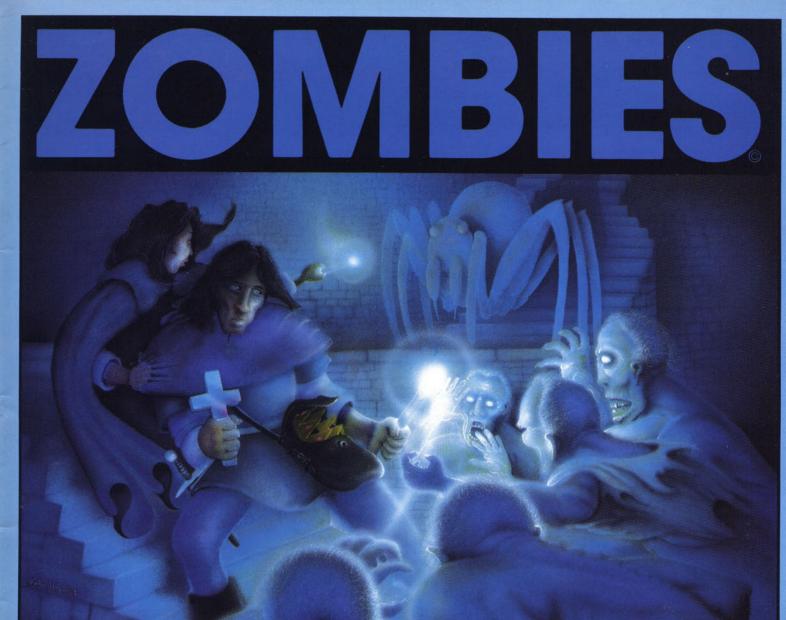
Final Thoughts

I find it interesting that NA86 is completely non-nuclear. Whether this hypothesis of restraint is overly optimistic, I don't know. It does, however, allow the game to develop as an interesting strategy exercise. By ignoring nuclear weapons, though, Gary Grigsby sidesteps completely the question of nuclear missile submarines. These sea-borne ICBM platforms are operated by both sides. In the game, we don't have to worry about them, they won't siphon off any conventional naval forces to defend them. We also avoid the question of whether attacks on nuclear missile submarines would prompt a nuclear launch by either side.

NA86 is not a comprehensive game of future combat (thank goodness!). It is a challenging simulation of theater combat in a more or less

plausible future. It definitely should not be your first computer wargame. But, it definitely should be one of your computer wargames!

One final note. The original version of NA86 had a bug which was corrected about July of 1983. The problem was in the location of the Faroes base. Though the map location was correct, the program treated the base as if it were one square to the east, on a "land" square which is inaccessible to ships. Thus ships could never dock at the Faroes base. If you're not sure if your disk has the bug and want to find out quickly. launch an airstrike from Scapa Flow at the Faroes. If the program returns the range as "six", you're ok; a range of "five" indicates the bug. SSI will send you a good copy if you return the problem disk to them with a note of explanation.



*Atari is a trademark of Atari, Inc.

Copyright 1983 BRAM Inc.

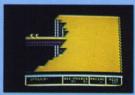
Scrolling 3D graphics, on-line instructions, one or two player cooperative, seven different dungeons, 74 different screens, high score save to disk, full sound and color, zombies, poisonous snakes, giant spiders, evil orbs, scrolls, talismans, magic spells, lost crowns and spectacular underground scenery.



BRAM Inc.









18779 Kenlake Place N.E. Seattle, Washington 98155 (206) 486-8428 A fast action arcade fantasy for Atari's.* By Mike Edwards from **BRAM** Inc.

Disk and Tape \$34.95



QUEST

PENSATE

Exciting Adventures

Arcade Fun

Strategy

Fantasy Role Playing At Penguin, we don't rely on the same old game formulas, adding to the mish-mash of look-alike games already on the market. We look for creativity, originality, and innovation. Games like Minit Man, challenging you with two types of arcade action simultaneously; Coveted Mirror, an adventure with animation and arcade games throughout; The Spy Strikes Back, an arcade game with strategy and a touch of adventure; Pensate and Tactic 9, games that make you think; and Expedition Amazon, an intriguing and humorous fantasy game.

MINIT MAN

Games for Apple, Atari, Commodore, and IBM computer

And Each Is Only \$19.95! More Fun For Your Money From Penguin Software

Write for a free catalog

SPY'S

830 Fourth Avenue, Box 311 Dept. F Geneva, IL 60134 For information - Call (312) 232-1984 Dealer orders only - Call (800) 323-0116 Apple is a trademark of Apple Computer, Inc. Atari is a trademark of Atari, Inc. Commodore is a trademark of Commodore Business Machines, Inc. IBM is a trademark of International Business Machines Corp. Penguins are hard on pool toys.