



So you think you can beat every game made for your Intellivision* system, huh?

Well, so did Billy Grubb up there. Until he played IMAGIC'S* new games for Intellivision—the first games ever to unleash the enormous power locked away in every Intellivision system.

First, Bill played <u>Demon Attack</u>.* Wave after wave of deadly demons bombarded Bill with lasers. The tricky demons split in two, even let loose with a few fireballs. But somehow Bill managed to wipe them out and take off into space searching for the demons' home base.

Demon Attack



Unfortunately for little Billy, he found it.

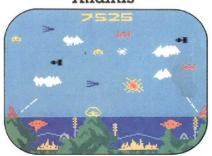
Next, Bill gave Atlantis a shot. The Gorgon attack vessels filled the skies above the underwater city of Atlantis. Bill fought back from his two missile posts. As night fell, and the Gorgon death rays took their toll, Bill launched his star fighter and attacked the enemy head-on in the air.

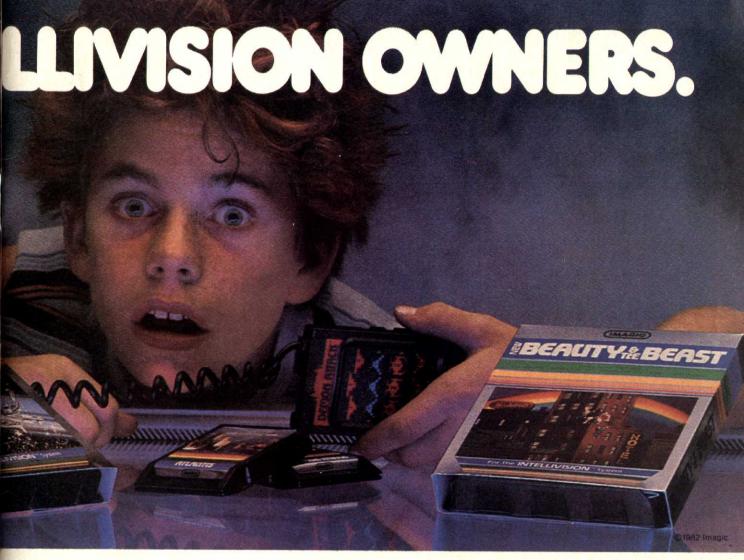
But little Billy was no match for the fierce Gorgon warriors. No match for IMAGIC.

By now, Billy was feeling a little sick. He was ready for <u>Microsurgeon</u>."

Using a surgical robot probe, Bill began exploratory surgery on the

Atlantis





patient. The status report warned of serious problems in the heart and lungs. Bill raced down the circulatory system fighting white blood cells and bacteria all the way.

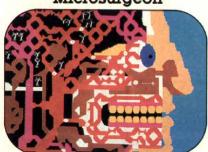
The beating of his patient's heart was deafening as Bill raced against the clock to remove the cholesterol blocking the arteries. Then the beating stopped.

And so did Billy.

Next, Bill grabbed for <u>Beauty & the Beast</u>. "This'll be easy," he said with his last glimmer of cockiness. It wasn't.

After climbing up a building through dozens of open windows,

Microsurgeon



jumping over rolling boulders, narrowly avoiding vicious rats, and ducking under deadly birds, Bill was still four stories away from the beast that was bullying his best girl. Then he fell off the ledge.

Bye-bye, Biiiilllllyyyyyy!!!!!
Let this be a warning to all you cocky, know-it-all, self-proclaimed video game wizards out there:

Laboratory tests have proven that IMAGIC games, when played in large doses, may be hazardous to your self-esteem and cause chronic Hugedigitosis (sore thumb).

In other words, our games are created by experts for experts.

Beauty & the Beast





electronic Genes



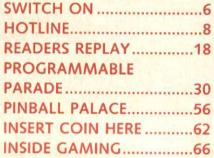
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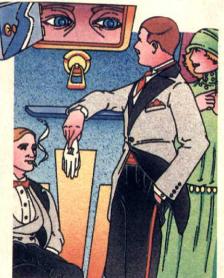
PLAYERS GUIDE TO COMPUTER GAMES

Want to try the ultimate in videogames? Climb into the cockpit of the LAMPS helicopter simulator and you'll be...

FLYING HIGH WITH THE NAVY 22









Everyone loves electronic games, but they actually offer some folks a new lease on life. Read the good news about our hobby:

GAMING & THE HANDICAPPED

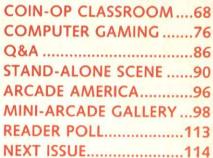
A good joystick practically becomes an extension of the player when the action gets hot, but hand controllers are just enigmatic "black boxes" until you've read:

HOW JOYSTICKS WORK

72

You can get the gallant gobbler on everything from an ice pop to a pendant.

A GUIDE TO PAC-MERCHANDISING





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The Surgeon General Says. . .

By ARNIE KATZ

ideogames may be hazardous to our nation's youth, says United States Surgeon General, Dr. C. Everett Koop. Admitting that he has absolutely no scientific evidence whatsoever to support this brazen statement, Dr. Koop adds the good news that many young people in this country are already addicted to the games "body and soul". And, no, he has no proof to support that allegation, either.

Like many other Americans, I have always looked to the office of the Surgeon General for guidance on matters relating to public health. This is what makes Dr. Koop's entirely unsupported and undocumented attack on the hobby of electronic gaming, a leisure time activity now enjoyed by nearly 80 million Americans, even more disturbing and hard to swallow.

If videogames represent such a potential danger, Dr. Koop, perhaps you'd better tell. . .

★ Quadraplegics on the West Coast for whom videogames represent a ray of sunshine in what can, at times, be a nightmarish existence.

- ★ Children with learning disabilities in upstate New York, where playing videogames is proving valuable in helping youngsters to overcome the life-stunting, and often embarrassing, handicap of dyslexia.
- ★ Senior citizens in Michigan, for whom sessions of videogaming are a means toward overcoming the feelings of insecurity and inadequacy that sometimes accompany the onset of advancing years.

...And, of course, all the people from coast to coast who are honing their mental and physical abilities to a new level of keenness thanks to the bracing challenge supplied by all forms of electronic games.

"Addiction" is an emotionally loaded and highly charged word in our society. It conjures up lurid visions of helpless zombies groveling in the gutter until they can summon enough strength to mug an old woman for her welfare check. The use of this word to describe the enthusiasm which millions feel for these games, with-

out offering one bit of scientific verification to back it up is irresponsible and inflammatory, to say the least.

The idea that videogamers are addicts is simply not supported by the wellestablished facts of the situation. Readership polls conducted on a monthly basis by Electronic Games since the inception of the magazine shows electronic gaming fans spend about an average of six hours a week enjoying the hobby. Remember, EG's readers represent the most involved segment of the game-playing public. Since hard-core gamers are devoting such a moderate amount of time to the hobby, does it really seem likely that the rank and file arcader would spend much more time than this with a joystick? From where I sit, that sure sounds a long way from Dr. Koop's addiction". The Surgeon General should be providing facts, not creating hysteria.

The unreasonable and unprovoked attack on electronic gaming, which has an unparalleled record of safety over the last decade, is the latest example of what is proving to be an unwholesome governmental trend.

Continued on page 102

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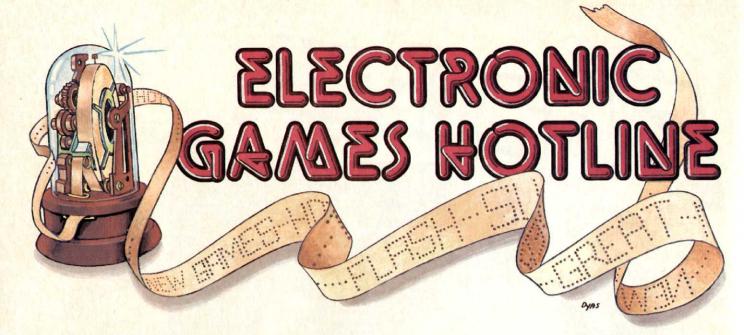
IT'S ONE HOME VIDEO GAME YOU CAN REALLY GET INTO.

Inside Reactor, you fry nutrinos! Bounce positron clusters! Knock out control rods! Shrink the reactor core! Drop decoys! Load the bonus chambers! But most of all, avoid the dreaded vortex! It's one game that demands everything you've got. And gets it.

Reactor. Parker Brothers' version of the intense arcade game. You can't help but get into it. For your Atari Video Computer System™ or Sears Video Arcade.™



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PICK AXE PETE PICK-OFF PICKS CHAMP PICKER

The Pick Axe Pete Pick-Off, sponsored by Odyssey, was held to locate the best player of the popular Odyssey² climbing game.

climbing game.
Five finalists won trips for themselves and a guest to the World's Fair in Knoxville, TN, for the finals. A gutsy 10-year-old arcader named Tony Scardigno copped a pound of gold, worth more than \$6,000 while proving himself world's

champion picker. The crowdpleasing event helped swell Fair attendance to a singleday record of over 110,000.

Tony wasn't sure what he'd like to do with the cash, but said he hoped to take "about an ounce" to buy some videogames, and put the rest away for college.

Hoping to qualify for the two-night trip to the World's Fair and the chance to play for a pound of gold, over 10,000 Odyssey owners sent in photos of their top scores and anxiously awaited results.

The country's top players, each qualifying with more than 9,000 points were: Jodi Schumacher and her brother, Bryan, from Trenton, OH, George Floyd, from Rogersville, TN, Mike McKim, from Alexander, AK, and Tony Scardigno, from Weehawken, NJ.

EG editors Arnie Katz, Bill Kunkel and Joyce Worley judged the *Pick Axe Pete Pick-Off*, with Katz MCing, while Kunkel added color commentary and strategy hints right down to the conclusion.





TEAMWORK COUNTS AT WILLIAMS

Williams' new coin-op videogame, Joust, allows two players to challenge each other or work together against the unknown forces of a mythological world.

Players fly on an ostrich or stork and attempt to unglue enemy riders astride buzzards. Those gamers able to conquer, turn the enemy into an egg that hatches into an even more dangerous pterodactyl, unless the arcader picks up the egg first.

Later, fire destroys the landing ledge and a lava troll grabs anything flying over its den. Each new wave brings new strategic decisions, particularly about whether to team together or go against one another.

"THE MOST UNIQUE TWIST ON THE MAZE CHASE IDEA SINCE THE ORIGINAL PAC MAN."
BILL KUNKEL, EXECUTIVE EDITOR, ELECTRONIC GAMES MAGAZINE

"CHALLENGING PATTERNS, DELIGHTFUL GRAPHICS AND WILDLY CHOMPING TEETH MAKE JAWBREAKER ONE OF THE MOST ENTERTAINING 'EAT-EM-UP' GAMES." JEFF ROVIN, EDITOR IN CHIEF, VIDEOGAMING ILLUSTRATED

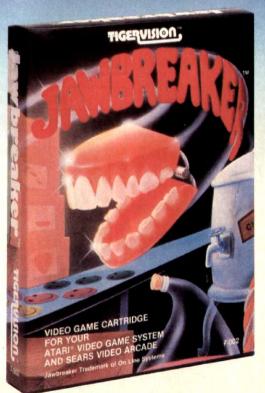
"JAWBREAKER RIVETS YOUR EYES TO THE SCREEN. IT'S ADDICTING." RAYMOND DIMETROSKY, ELECTRONIC FUN MAGAZINE

THE EXPERTS HAVE ONE WORD FOR JAWBREAKER." "GREAT."

When editors and writers with leading video game magazines start piling praise on a new video game, it really means something. Because these are the people who see them all and play them all.

And they see some very exciting things in the new Jawbreaker video game. Bill Kunkle, for instance, calls Jawbreaker, designed by John Harris, "The most unique twist on the Maze Chase idea since the original Pac Man".

When the game starts,



For use with the Atari* Video Computer System**

you're loose in a candy factory, getting your choppers on every bar of candy in sight. But watch out for the happy faces. They're after you. Swallow the vitamin pill and for a few moments you can eat the happy faces. Eat up all the candy bars and a tooth brush cleans your teeth.

So take it from the experts. For the kind of fun and excitement you'll really eat up, Jawbreaker has what it takes. Get your hands on that joystick and you may never let go.

TIGERVISION,

Division of Tiger Electronic Toys, Inc. 909 Orchard, Mundelein, Illinois 60060, Telephone, (312) 949-8100.

STRATEGO SUMMIT HELD

Milton Bradley sponsored an unusual promotional undertaking in New York City to honor their latest release, Electronic Stratego.

Look-alikes for Ronnie Reagan and Soviet Premier Brezhnev were police escorted in big black limos to the steps of the Public Library at 5th Avenue and 42nd Street, as the band played "Hail to the Chief". The guys played a round of MB's new *Electronic Stratego* boardgame, giving many New Yorkers a chance to peek in at the action. The outcome will have little effect on the world situation, since the two played to a tie.





ATARI BRINGS E.T. HOME

Atari has just scored the coin-op and home rights to the videogame versions of that blockbuster hit movie, "E.T.". The film's director, Steve Spielberg, will work closely with Atari on the design, content, and execution of the game, but this shouldn't prove too grueling a task for Spielberg, a self-confessed videogame fanatic.

This news, along with the Atari/Lucasfilm connection, puts Atari on top with regard to film-based videogames.

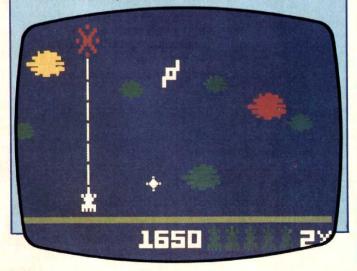
HOUSTON HOSTS ASTROSMASH SHOOT OFF

The Astrosmash shoot off, themed "Sports in Space", brought top arcaders to Houston, TX, after nearly 12,000 entrants submitted score verified photos of their TV screens as applications. The competition lasted five months and involved 72 finalists, each of whom were allowed to take one guest on the three-day trip to Houston, courtesy of Mattel.

Manuel Rodriquez, from

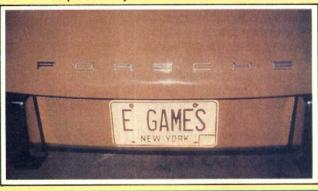
Stockton, CA scored a winning 835,180 points in one hour of play and pocketed \$25,000 in prize money. Charles Tappan from Elmira, NY copped second place by scoring 828,560, winning \$12,500 for his troubles while 3rd and 4th placers received prizes of \$10,000 and 5th through 8th rankers earned \$5000.

Eight additional regional winners received 1983 Intellivision products, bringing the total jackpot in cash and prizes to \$100,000.





EG publisher Jay Rosenfield shows the colors!



11-YEAR OLD TRIUMPHS AT MONOPOLY

The New York City Monopoly champ who forced noted industrialist Howard Samuels into bankruptcy, as well as humiliating Boston Celtic President Red Auerbach and Met star Rusty Staub was none other than an 11-year old whiz named Paul Bosco. Bosco accumulated \$13,000 in assets in a final 90-minute

The New York City round of competition against onopoly champ who forced the three bruisers, in a contest of the distribution against the three bruisers, in a contest of the three bruisers.

The head-to-head play-off promoted the new electronic Monopoly Playmaster, which enhances the game with sounds and visual effects while managing dice rolls, property trading and bank loans.



MATCH WITS WITH THE MINDMASTER.

But Be Warned! The Supercharger™ Gives the MindMaster an Unfair Advantage.



Escape from the
Mindmaster™ is the newest
Supercharger™ game from
Starpath.™ And it uses all the
extra game playing power
that the Supercharger™
gives your Atari® Video
Computer System.™ For
the most exciting, most
challenging action you've
ever encountered.

The exclusive Multi Load™ feature takes you through seven unique gamescapes—each with its own action and graphics—the equivalent of several conventional game cartridges. It's like getting an LP instead of a 45. But since Escape from the MindMaster™ and all

Starpath™ Supercharger™ games come on economical cassette tapes, they cost much less than a <u>single</u> conventional game. (Supercharger™ must be purchased separately.)

Take on the MindMaster today. But prepare to be humbled.

For store locations, call: (800) 227-6703 outside CA (800) 632-7979 inside CA

THE NATIONAL ARCADE SCOREBOARD

THE BEST SCORES FOR POPULAR VIDEOGAMES

Photos of readers' best scores are really pouring into the offices of **Electronic Games**, and the competition among the land's arcade aces is even keener than expected. There are plenty of top players out there, and the rankings listed here show that they're hitting the joystick hot and heavy in a bid for national recognition.

The scores tabulated here reflect the first group of games which the editors of EG selected to kick off this continuing compilation of home videogaming records. We'll be adding more games and updating their scores each month, a few at a time, until we're covering most of what's hot.

To have your gaming achievements recognized in the National Arcade Scoreboard, all you've got to do is follow a few simple rules:

- Every score must be accompanied by a photograph of the TV screen showing the score. These photos do not have to be of publishable quality, just readable by our judges.
- All photographs received become the property of Electronic Games and none can be returned.
- Be sure to include your complete name and address. (We will print only the name and city in the magazine, but we may want to contact high scorers for helpful gaming hints.)

Games currently eligible for the National Arcade Scoreboard are:

- ★ UFO (Odyssey) Game #1
- * Asteroids (Atari VCS) Game #6
- ★ Grand Prix (Activision) Course #4
- ★ USAC Auto Racing (Mattel) Course #1
- ★ Spacechase (Apollo) Game #1
- ★ Defender (Atari VCS) Game #1
- ★ Space Hawk (Mattel) Game #1 (auto-fire, if desired)

THE HONOR ROLL

UFO/Odyssey/Odyssey ²/Game #1

- 1. 1,636 Lee Raymond, no address given
- 2. 1,575 Jim Peterson, Farmington Hills, MI
- 3. 1,461 Marlon Burns, Chicago, IL

Asteroids/Atari/Atari VCS/Game #6

- 1. 199,990 Ed Semrad, Waukesha, WI
- 2. 195,310 Bob Clarke, Racine, WI
- 3. 129,460 Bob Prindle, Erie, PA

Grand Prix/Activision/Atari VCS/Course #4

- 1. 1:35:68 Mike Ratledge, Folly Beach, SC
- 2. 1:36:73 Ed Semrad, Waukesha, IL
- 3. 1:37:03 Isaias Banegas, New York, NY

USAC Auto Racing/Mattel/Intellivision Course #1

- 1. 2:55 Jerry Kurfess Jr., Jackson, MI
- 2. 2:56 Robert Allen, Sarasota, FL
- 3. 2:57 Ed Rovetti, West Corina, CA

Spacechase/Apollo/Atari VCS/Game #1

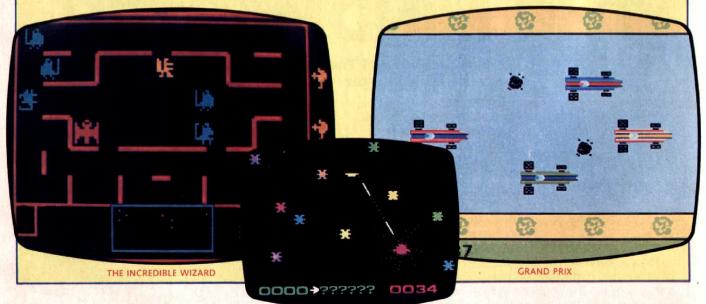
- 1. 185,075 Tom Garcia, Whittier, CA
- 2. 93,300 Ed Semrad, Waukesha, WI
- 3. 45,500 Adam Krlic, Medford Lakes, NJ

Defender/Atari/Atari VCS/Game #1

- 1. 2,002,850 Art Childs, Gaylor, MI
- 2. 1,182,500 Ron Kramer, Glassport, PA
- 3. 1,154,900 Paul Peterson, Bethel Park, PA

Space Hawk/Mattel/Intellivision/Game #1

- 1. 10,142,040 Luc Labelle, Manitoba, Canada
- 2. 5,130,660 Steve Connelly, Boone, NC
- 3. 2,166,490 Rod Gideon, Ft. McMurry, Canada



COMMAVID Presents

PLAYABLE VIDEO GAMES

for your Atari® Video Computer System™

CommaVid video games are designed to keep you involved. New games where your pleasure increases as your skills develop. More than just flashy graphics, you'll find challenges that hold your interest play after play.

THE REVIEWERS REPORT: Room of Doom

"This game is a real challenge both to your marksmanship and your staying power. Like any good video game it requires practice and patience to get through all the Rooms of Doom..."

Vol. 1 No. 1, Nov. 1982

Four Joysticks; Highest Rating
Walter Salm
Electronic Fun with Computers & Games

Play Room of Doom for yourself! See if you can escape from the gunmen trying to annihilate you.



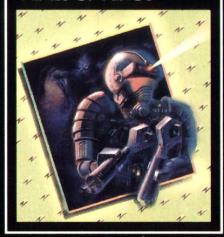
OTHER VIDEO GAMES FROM COMMAVID:

COSMIC SWARM



Fight off the attacking alien termites before they jam your space station.

MINIES OF MINOS



Aliens stalk the corridors. A single robot survives to battle them.

MISSION OMIEGA



The last mission from earth, and only you can save the universe.

CommaVid Inc., Box 3308, Fox Valley Center, Aurora, IL 60505

THE NATIONAL VANITY BOARD

Today's Top Coin-op Scores

Electronic Games is proud to announce the creation of the National Vanity Board to identify and honor the nation's arcade aces. Just as the National Home Arcade (set to debut next month) salutes the achievements of the lords and ladies of livingroom gaming, the National Vanity Board will monitor the triumphs of the kings and queens of the coin-op videogaming world.

EG will update the listings each month based on information provided by game manufacturers, arcade operators and, most importantly, our hundreds of thousands of readers. If you or one of your buddies rewrites the record book for the most popular commercial arcade machines, getting the proper recognition for the new champ is as easy as following these three steps:

- 1. Set the record.
- 2. Show the arcade manager on duty your record score and have him (or her) sign the proper portion of the report form-copies or facsimiles are fine.
- 3. Mail your score report to: Electronic Games, 235 Park Avenue South, Sixth Floor, New York, N.Y. 10003.

Score Report Form	
Name of Player (Please Print)	
Player's Address	
Name of Game	
Score	
Name of Arcade	
Arcade Address	
Arcade Operator's Signature	

Here Are the Arcaders to Beat!

Battlezone (Atari) Dennis Hranitzky Grapevine, TX

Record: 9.600,500

Missile Command (Atari)

Joe Fernandes Artesia, CA

Record: 52,246,260

Centipede (Atari)

Darren Olson Calgary, Canada Record: 15,207,353

Star Castle (Cinematronics)

Jack Haddad, Tony Garza San Jose, CA Record: 12,536,960

Crazy Climber (Nichibutsu)

Jim Wright Lake Orion, MI Record: 487,150

Defender (Williams)

Marvin Norton Safford, AZ Record: 49,367,750

Pac-Man (Midway)

Dave Marsden Santo, TX

Record: 14,880,210

Scramble (Stern)

Jason Itzler Cliffside Park, NJ Record: 8,410,500

Phoenix (Centuri) Darnel Stephens Piqua, OH Record: 585.778

Astro Blaster (Sega/Gremlin)

Ralph DeMarzo Brooklyn, NY Record: 91,640

Gorf (Midway)

Jim Hart Jacksonville, NC Record: 1,237,500

Dig-Dug (Atari)

Dwayne Lindsey Redding, CA Record: 3,499,010

Donkey Kong (Nintendo)

Steve Sanders Clifton, MO Record: 863,500

Frenzy (Stern)

Alexi Anastasio Corning, NY Record: 1,069,380

Frogger (Sega/Gremlin)

Dave McPhee Muncie, IN Record: 507,230

Galaga (Midway)

Jack Pardo Lansing, MI Record: 5,102,380

Omega Race (Midway) Rick Klin Hamilton, MT Record: 1,779,300

Stargate (Williams) Mike McCrary

Albuquerque, NM Record: 64,830,268

Robotron (Williams) Steve Harris

Gladstone, MO Record: 115.935.000

Tempest (Atari)

Eric Clayberg Fredericksburg, VA Record: 1,697,634

Vanguard (Centuri)

Greg Mercier Huntsville, AL Record: 750,150

Wizard of Wor (Midway)

Johnny Thatch Marietta, GA Record: 398.000

Zaxxon (Sega/Gremlin)

John Aiuto Holly Hill, FL Record: 1,293,400

Tron (Midway)

John Carver Holly Hill, FL Record: 1,554,836

Solar Fox (Midway)

Rick McClellan Columbus, OH Record: 221,110

Thief (Pacific Novelty)

John Carver Holly Hill, FL Record: 389,890

Kick-Man (Midway)

Rich Turkishev Manitov Springs, CO Record: 4,429,555

Kangaroo (Atari)

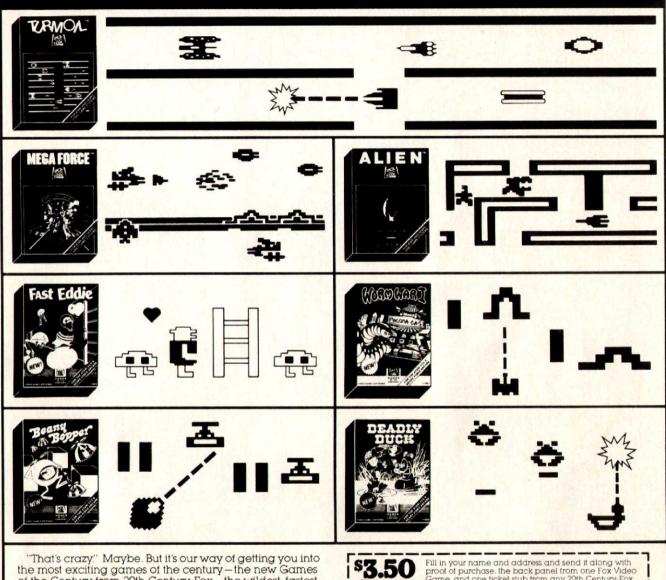
Francis Haggerty Cresskill, NJ Record: 162,400

Looping (Venture Line)

Bruce Boulden Frankfort, IN Record: 449,500

Space Firebird (Sega/Gremlin)

Bobby Henderson Belle Chasse, LA Record: 128,520



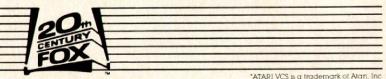
"That's crazy." Maybe. But it's our way of getting you into the most exciting games of the century—the new Games of the Century from 20th Century-Fox—the wildest, fastest, most challenging video games you've ever seen. "Sounds great. But what about the \$3.50?" Just buy any

one of our new video games. Then fill out the coupon and send it to us along with proof of purchase and the back panel from the game package plus a ticket stub from any 20th Century-Fox movie you've seen lately, and we'll send you a check.

"Can't beat a deal like that." True. And nobody can beat our games.

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FOR ATARI VCS* AND SEARS VIDEO GAME SYSTEMS.



Games of the Century

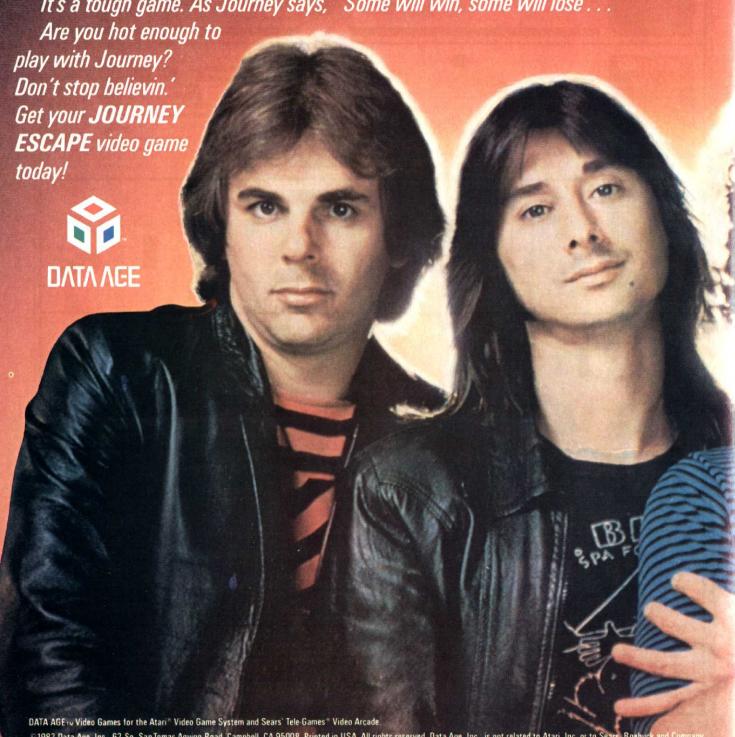
*ATARI VCS is a trademark of Atari, Inc

ARF YOU HOT FNOUGH

Introducing "JOURNEY ESCAPE," the challenging new DATA AGE. Video Game.

You're on the road with America's hottest rock group, Journey. And they're counting on you. You're the only player who can help Journey make it to their scarab escape vehicle. Only you can outsmart the promoters, avoid the photographers and fight off the love-crazed groupies. If you can handle it!

It's a tough game. As Journey says, "Some will win, some will lose . . . "



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EG-ING US ON

As an EG reader from the first issue I have enjoyed and agreed with all of your editorials in "Switch On" and believe that most, if not all, readers share these thoughts.

It seems to me that too many people, in both the arcade and retail ends of the business, all share a heretoday/gone-tomorrow philosophy. As you know, owning a videogame system can be an expensive hobby if the person isn't a careful, comparison shopper. That's what I am when it comes to my new ColecoVision and my old Atari VCS. If I can save money by buying the cartridges from several, different stores, fantastic. I've written to many of the companies in your magazine and in others and have gotten fantastic response to requests for catalogs, etc. But several companies have sent price lists or catalogs that were either so out of date or unreadable or insulting that they won't get any of my business. Also, very few are willing to put you on a mailing list, even if you buy from them.

How about reader response cards, such as Video has? These cards have gotten a lot of use from me, and with the proliferation of videogame companies, manufacturers, retailers, repair shops, etc., etc., this could be a great addition to an already great magazine.

Jim Woodward Boynton Beach, FL

Ed: The shrewd comparison shopper — especially in major metropolitan areas — can find a world of difference in terms of price and service from one retailer to another. Those arcaders who are forced, by geography (or some other reason), to deal

with mail order firms should definitely follow Jim's lead. Always send for the catalog first, since this is the only tangible clue the gamer has as to the nature and standards of a particular shop. If a mail order store is sending out antiquated or illegible catalogs, it might be a sign that this place deserves a pass.

As to the use of reader response cards, this is a subject that has gotten quite a bit of debate here at the EG offices. Within the last few issues, however, readers have begun requesting the cards in considerable numbers, and as you know, we do what our readers tell us. So it's a pretty fair bet that these reader service cards will be turning up soon.

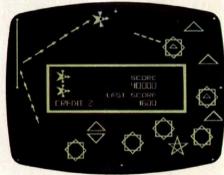
VIC'S MIDWAY

It was your "Test Lab" column on the Commodore VIC-20 that finally convinced me that it is a good game-playing machine. Since Midway has licensed Omega Race for the VIC, will we see other Midway titles such as

Pac-Man, Galaga, Solar Fox and Tron for my system, even though they have released some of these to other companies?

Daniel Levey Palo Alto, CA

Ed: In terms of licensing coin-op titles to home arcade systems, we are



OMEGA RACE

finally beginning to see a trend emerge that we at **EG** have long supported — non-exclusive licensing. What this means is that the right to use a title is granted only for a specific system. In other words, if you are Atari

OF SUIT OF SUI

COMMODORE VIC-20



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when you join the CBS Video Game Club and agree to buy just 2 more games, at regular Club prices, in the coming year

Just look at the video games offered here...all available for home enjoyment on your Atari[®] Video Computer System *! They retail anywhere from \$26.95 to \$34.95 each, yet you can have any one for only \$4.95—with membership in the CBS Video Game Club! This is an exciting new service that offers you the newest home video games on a convenient shop-at-home basisand at great savings!

How the Club works: approximately every six How the Club works: approximately every six weeks (up to 9 times a year) you will receive the Club's colorful Video Game Magazine. It announces the Super Hit Game Selection ... generally, a brand-new arcade winner. In addition, the Magazine will picture and describe many other video games, new gadgets to upgrade your own Atari® system, helpful hints on bow to improve your sorges a poster and on how to improve your scores, a poster, and much more.

much more. If you want the Super Hit Game Selection, you need do nothing—it will be sent to you automatically. If you want one of the alternate games offered—or nothing at all—just tell us so on the response card always provided and mail it by the date indicated. You'll always have ten days to make your decision. If you ever receive a game without having had ten days, return it at our expense.

The game cartridges you order will be mailed and billed to you at regular Club prices—which currently range from \$24.95 to \$29.95, plus shipping and handling. Remember, you don't have to buy a game every time you hear from us—your only membership obligation is to buy as few as two games in the coming year, and you may cancel membership at any time after doing so. If you decide to continue, you'll be eligible for our generous money-saying bonus eligible for our generous money-saving bonus

10-Day Free Trial: we'll send complete details of the Club's operation with your introductory cartridge. If you are not satisfied for any reason whatsoever, just return everything within 10 days for a full retund and you will have no further obligation. So be part of the action by mailing the coupon now!

WANT STILL ONE MORE GAME for \$4.95?
You can have ANY TWO of these video games for only \$4.95 each—if you agree to buy four more (at regular Club prices) in the coming two years! Just check box in application and enclose \$9.90 for your two games.

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Please accept advertisement	my application un and enroll me und	der the term er the offer ch	s outlined in this ecked here:
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Credit Card No. in full

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Expiration date

Nintendo of America Inc. © 1981 Nintendo of America Inc. Exclus *STAR WARS.* THE EMPIRE STRIKES BACK.* * TM and © Luca:

and have just licensed, say, Galaga, under the non-exclusive arrangement, you get the rights to produce Galaga for the VCS, or 5200. Non-compatible videogame systems, such as the Odyssey², the Intellivision and ColecoVision, could then pick up the rights to produce Galaga for their systems. That way, just because you don't happen to own the most popular programmable unit or computer, you've still got a good shot at getting your favorite coin-op in home format.

PICTURING THE TOP SCORE

I have two very disturbing problems. I have a 110 Instamatic camera and have unsuccessfully taken pictures attempting to document my high scores both with and without a flash. How do you do this?

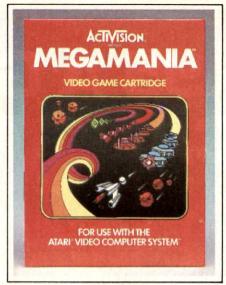
Also, since most videogames "rollover" at 99,999 points, how do you prove a record score?

> Matthew Klein Bridgeport, CT

Ed: When taking a photo of a TV playfield, never use a flash, as this simply "whites out" any screen by filling it with intense light. Okay, now that you've got the flash disconnected, turn out all the other lights in the room, so that the only source of illumination in the room is the TV screen.

As to the roll-over problem, this is a difficulty all around. In fact, in the recent "Defend Atlantis Shoot Off", Imagic came smack up against that very problem. In fact, it became necessary for Imagic to produce a new, harder version of Atlantis for the 80-plus super-gamers who made it into the semifinals.

In our own EG Scoreboard, we



MEGAMANIA

attempt to select games that won't be rolled-over — such as the Odyssey's **UFO** and Activision's **Megamania**.

WANTED: ASTRO SOFTWARE

I am a loyal Astrocade fan and I'm very disappointed about the amount and quality of games currently on the market for that system. They have had stupid commercials boasting of their four-player capability, 256 colors (which nobody really cares about), and a series of magazine ads stating the same thing but adding that they have four new game cartridges to come. Unfortunately, these games never seem to get into the stores and retailers don't seem to know anything about them. I would like to know what the current situation is with the Astrocade.

> Evan Feldman Hewlett, NY

Ed: Unhappily, the current situation

with the Astrocade is still up in the air. Several new games have arrived at the EG offices for testing, including Pirate Chase and the excellent Incredible Wizard — Bob Ogdon's home version of his Wizard of Wor. Unfortunately, distribution on these titles has been scattershot, with most retailers never even knowing the games even exist. Unhappy, starving Astrocaders might try some of the independent software vendors producing games for the Astro. The top companies at the moment seem to be Wavemakers (Box 94801, Schaumburg, IL 60193), Esoterica Ltd. (PO Box 614, Warren, OH 44482) and L&M Software (8599) Framewood Dr., Newburgh, IN 47630). Send for a complete catalog and watch for our upcoming feature on the "Astrocade Underground!"

PAC-MANIA, PART IV

I am an EG subscriber and just couldn't wait for the October issue and the "Test Lab" feature on how to customize the Coleco Pac-Man with an Atari VCS joystick controller.

However, due to the lack of a wellrun electrical supply store, I was forced to hunt down an Atari joystick from an out-of-town dealer, who still didn't know what a male adapter was.

They left me no choice but to wire direct. Now all four-directional moves are as accurate as the coin-op, but *Pac* has a couple of new scrolls and a "safety zone" on the right-hand side of the goblin's starting point.

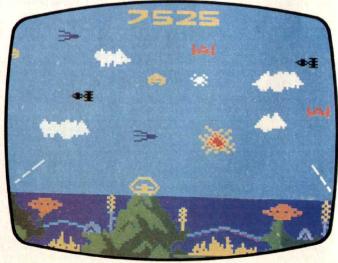
I'll gladly accept any suggestions as to what the problem is.

Arthur E. Pleau (address unknown) Ed: Although we've been unable to

detect any changes in Coleco's other

Continued on page 102





Two looks at Imagic's Atlantis (Intellivision)

WE EXPANDED THE MEMORY AND REDUCED THE PRICE.

THE ATARI 800 HOME COMPUTER NOW HAS 48K RAM.

Its expanded memory means the ATARI 800 Home Computer can offer you an even greater range of capabilities than before. Its reduced price means it's one of the best overall values available.

Let's take a closer look. The ATARI 800 offers you nine graphics modes for greater graphic dynamics and versatility. The Apple II+ and Commodore 64 computers have only two.

When it comes to color, the others might as well be in black and white. ATARI offers you 256 colors, and lets you display 128 colors on the screen at one time. The Apple II+? 16 total.

The ATARI 800 Home Computer's sound capability also comes through loud and clear compared to other computers. The Apple II+ has very limited music capability. And because the ATARI 800 requires fewer commands to create sound, it's easier to use than the Commodore 64.

That's a lot, but that's not all.



MORE SOFTWARE, MORE APPLICATIONS.

Over 2000 quality software titles are available for the ATARI 800 Home Computer. Popular titles include exclusive games like PAC-MAN* and Centipede," personal development programs like Music Composer," home management entries like the new Bookkeeper program, and AtariWriter," a word processing system.

ATARI also has seven programming languages available for the ATARI 800. Only BASIC is currently available for the Commodore 64.

ALMOST HALF THE PRICE OF THE APPLE II +:

In almost every respect—power, performance and peripherals—the ATARI 800 Home Computer is

comparable to the Apple II+. Cost, however, is a different story. The suggested retail price of the ATARI 800 is almost half that of the Apple II+.

The ATARI 800 Home Computer. Its memory isn't the only thing that's even better than before.

So is its value. For more information, write to: ATARI, Inc., Dept.C25X, P.O. Box 16525, Denver, Colorado 80216.

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THE ATARI 800 HOME COMPUTER.

We put more in it for you.

EUTINATE INDECEMBE Step into the ultimate in electronic simulation — the interior of the United States Navy flight trainer, about to land on the deck of an aircraft carrier, all computer-created.

Flying High with the Navy By DAVID LUSTIG he rules for this electronic game are simple. As a helicopter pilot, you have the responsibility of protecting the U.S. Naval Fleet from enemy submarines and anti-ship missiles. In addition, you will participate in rescue operations, observation, reconnaissance and cargo handling. As the pilot, you must watch for the enemy and be prepared to evade oncoming fire. Fuel is critical and must be monitored at all times. When it runs low, you must land at a base, on an aircraft carrier or on the stern of a The pilot in testing is closely monitored by trained Navy personnel who control every function of the LAMPS frigate equipped with a helo pad. To add a little spice to the "game", unexpected emergencies — engine fires or rotor failure - can crop up at the most inopportune times. There's no high score, but if you win, you get the satisfaction of knowing you beat the odds. If you lose and just one mistake ends the game well, you get to start all over again. Have all the rules memorized? Good. Your life will depend on how well you remember them. Obviously, this is not a home arcade game. It's the U.S. Navy's SH-2F LAMPS helicopter simulator at North Island Naval Air Station in San Diego, California.

Electronic Games 23

Used by nearly every facet of industry as well as the military, simulators



The U.S. Navy's SH-2F LAMPS is a technological — and money-saving — marvel that is used to train tomorrow's pilots

are a comparitively inexpensive, safe method of training. The Navy periodically dispatches its helicopter pilots to the simulator to sharpen their flying skills.

For the record, the real SH-2F is manufactured by Kaman Aerospace Corporation and used on a number of Navy ships. It is a single-rotor, twinturbine, all-weather helicopter.

In the LAMPS (Light Airborne Multi-purpose System) configuration, the helicopter has a number of jobs. Primarily, the SH-2F specializes in antisubmarine warfare and anti-ship missile defense. In other words, its mission is to search for submarines that may attack the fleet and protect it against such missiles as the French Exocet (which Argentina used so well against the British during the Falkland Islands' crisis). The helicopter is also used for rescuing downed pilots (or sailors who fall overboard), aerial observation,

tracking and cargo handling.

The military, a stickler for proper identification, classifies the simulator as the SH-2F Weapon System Trainer, Device 2F106.

Both the builder, Reflectone, and the Navy are proud of the fact that this is the first helicopter flight trainer that uses flight test data so specific that the end result is an extremely faithful duplication of flight characteristics and performance.

How faithful?

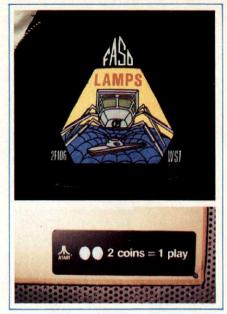
Well, if someone blindfolded you, sat you down in the copilot's seat, and then, with all systems operating, uncovered your eyes, it'd be virtually impossible to believe anything but that you were inside the real thing, flying through the night. Only on close examination would you be able to detect the complex series of dots that form the buildings, mountains and, of course, the ocean and its ships.

Doubting Thomases who don't believe such things are possible from a simulator on stilts, soon change their tune after a spell at the controls.

All sounds - radio static, rotor blades and engine noises - are faithfully duplicated. Without a headset, the noise is almost deafening, and the vibration can give your kidneys a real workout.

All cockpit instruments are functional and when the pilot botches a landing and comes down too hard, the simulator bounces and shudders as if it were really happening. From the armed force's point of view, this means that a three-man crew can strap themselves in and do practically everything the real SH-2F can do at a fraction of the price.

For pilots and copilots, it offers excellent flight and ground-handling characteristics and total training in instrument and cockpit procedures.



You won't need coins or tokens to play with this simulator, but it won't let you quit while you're ahead, either

The computer-generated visual presentation can be either a landing strip or deck, submarine or ship targets, sonobuoys (sonar devices dropped from the helicopter) or smoke markers.

To train the sensor-operator (the third crew member), the simulator generates aircraft, ships, submarines, radar returns, torpedos and a total acoustic environment.

All activities are controlled and monitored by instructors who sit at controls outside the simulator and watch three cathode ray tube displays. More than 40 problems can be cued in at any time. So just when the training crew thinks everything is under control, instructors happily punch up an enemy MiG that whizzes by, launch an anti-aircraft missile, or create an engine fire. When that last problem is inserted, literally all hell can break Continued on page 103

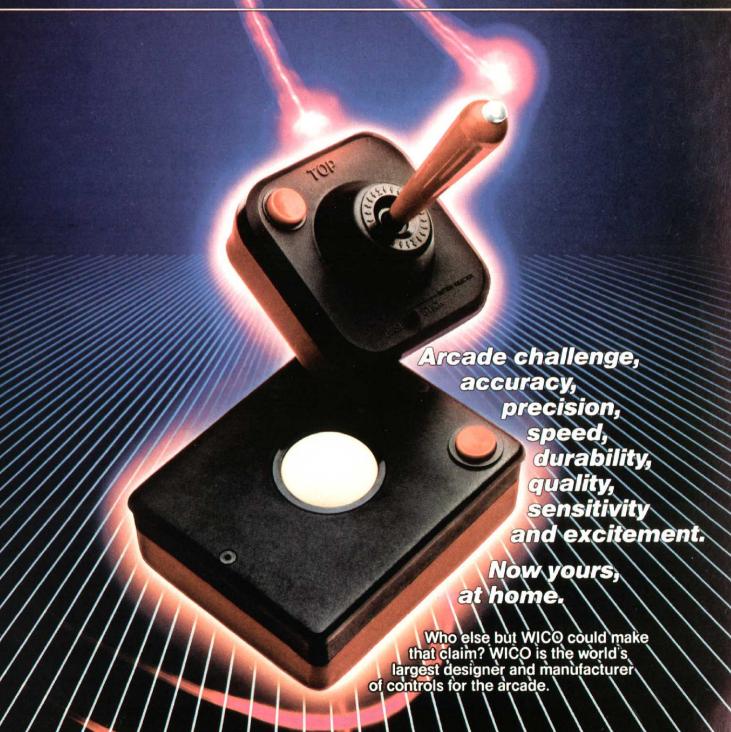
The simulator may not look very aerodynamic from without, but inside it's an electronic wonderland!







AND



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WICO Command Control joysticks and trackballs work with Atari and 8 other home video games and computers.

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JOYSTICK

How Your Favorite Controller Works

By HENRY B. COHEN

our robots are heading toward your outnumbered on-screen hero, and every last one of them is blazing away with a laser gun. You slam the stick to the side, and then quickly throw it in the opposite direction while thumbing the action button for all you're worth. Zap! Two angry androids skrag each other in a crossfire! Blam! Laser bullets send two metal monsters to robot heaven.

That kind of action is the heart and soul of videogaming, yet most of us rarely give a thought about the gizmo that makes it all possible — the joystick. This article, instead of telling you how to use your stick better, will pry off the outer casing and show you how the joystick gets the job done.

Basically, most joysticks employ a

simple combination of four on/off switches. So-called eight-way sticks merely read the position of any two switches to produce the additional four-directional settings.

Some joysticks, mostly those used with home computers, contain potentiometers (not on/off switches) which perform their work. These joysticks are in effect multi-volume controls and allow for theoretically more precise control than the simpler on/off type joystick.

The way controllers — all controllers — interface with electronic games is by inputting status changes to the memory unit of the game. When a game is played, its computer is always asking questions of the game player. In a simple "shoot-em-up", all the game needs to know is where the cannon is and whether it's firing. In effect, the

position and status of the cursor is called for. The game asks these questions constantly and the player, through the positions of the switches of his/ her controller, answers them. Most games ask for a simple on/ off answer, if the joystick is not moved, the answer effect "off" and the cursor (a cannon in

doesn't move. If the joystick is swung to the right, the answer is "on" and the game responds by sending the cannon to the right for as long as the stick is held in position or until the end of the playfield is met. If along the way the player chooses to fire, the button is pressed and the computer gets an answer to its unending question of "should I fire" and acts accord-

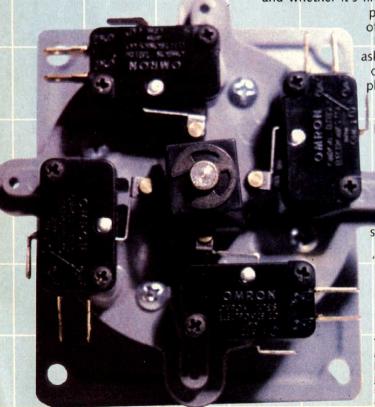
At this point, it should be clear that what separates the men from the boys in terms of joystick control is the quality of the switches they contain and the precision with which they can be manipulated.

Once you understand the mechanism involved in left/right cursor movement and firing, it's easy to see how the same methodology works for all other positions and depends entirely upon the program of the game being played. In a game where both horizontal and vertical movements occur, the computer is simply asking (at all times), "am I up or down,

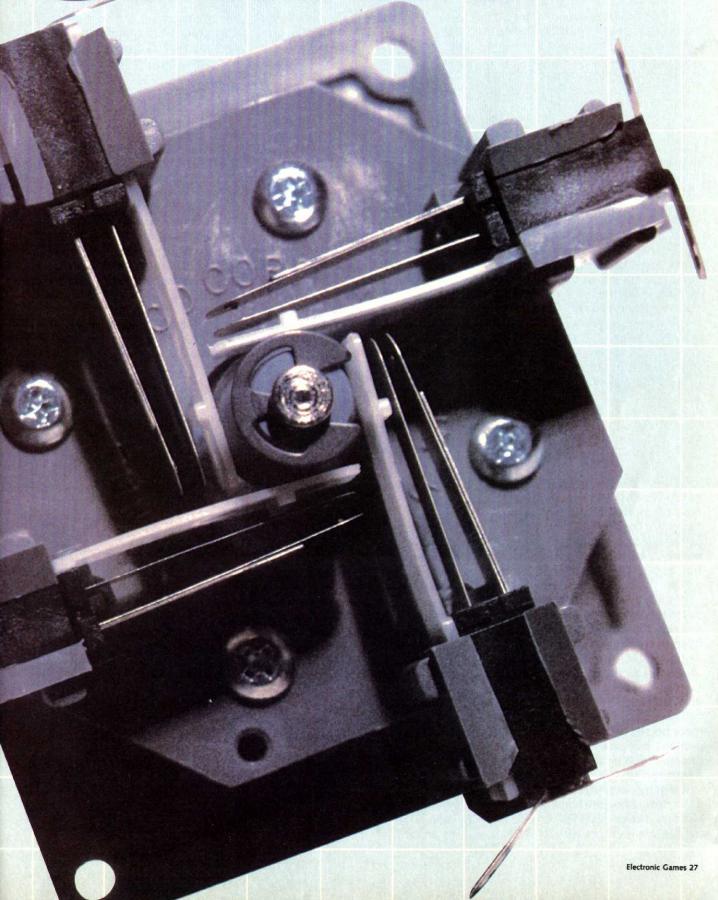
To the left, we have an interior, close-up look at the type of joystick that works on switches being clicked on and off

this case) simply

The most popular joysticks in use today are the socalled "leaf-switch" controllers, such as those used by Wico.



UPDATE



Learning how a joystick works is a sensible first step toward picking the "gourmet" controller that best compliments your style of play.

right or left?" The answer comes from the position of the joystick. In games in which diagonal movement is required, the computer notes when the joystick is moved into a position to activate any two of its four switches. For example, if we were moving an object to the upper right, both the "up" and the "right" switches would be activated. The game would read these two activations as a single command and move the object on-screen in the desired direction. But again precision plays an important role. In the best sticks this command would be generated "cleanly" as both switches would be activated at almost exactly the same time. In a cheap or poorly made stick, one or the other switch might activate a fraction of a second faster than the other. This could cause slightly off-target movement until both switches engage.

Even with superior sticks, diagonal movement is not as precise as straight left/right or up/down, because joysticks become mechanically misaligned through usage. There's no way you can avoid this. To make a joystick absolutely perfect would require it having its own microcomputer chip to account for these variables before issuing a command to the game computer. The cost and complexity of this type of controller is simply not warranted for the small gain in precision to be derived. RAM (random access memory) is used in tracball controllers but this is the essence of another article.

In sum, the precision of a joystick is based primarily upon the quality of the switches it contains and then of course by its overall quality and the quality of its housing. Can the housing hold all the many pieces of the joystick in place during strenuous game play and for how long?

In addition, the shaft of the stick must be strong enough to withstand arduous use and not place so much pressure on the switches that they fail from overuse.

It is in this area that different design philosophies begin to take over. Atari has opted to provide low-cost, easily replaceable joysticks with its systems. To this end, cheap "clicker switches" (actually small metal bubbles on a printed circuit board) are used. The resulting design is simple in terms of the number of parts it contains. They break down more readily than others, but are quite durable considering their low cost and are cheap to replace.

Going to the other extreme, the designers of WICO's Command Control line has fashioned a set of leaf switches (right from the arcade controllers they make) into an almost impregnable design for the home market - and that is at the low end of their line. The manufacturer's deluxe controller utilizes the entire joystick assembly found in many arcade machines in a housing for home play. In all cases, leaf switches and steel parts are used where needed. This level of construction virtually ensures a lifetime product and because leaf switches were chosen, adjustments to the leaves can be made over time to account for any usage

Up to this point, we have covered

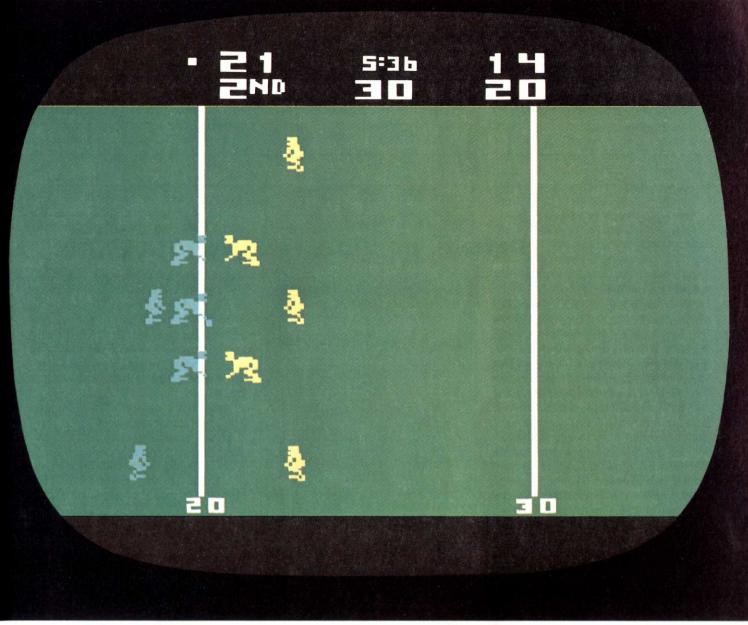
changeable voltages. These voltages are read by the computer as numbers, and numbers are more precise than simple on/off statements. This is why the cursor (or cannon in this example) seems to glide unerringly to rest exactly where you want it to be. Again, potentiometers are simply variable resistors or volume controls identical to the kinds of controls you find in most TVs and radios, etc. Two of them are used in a single joystick concurrently moving left/right and up/down, providing the computer with all it needs to know about the desired location of all objects under gamer control.

by offering input in the form of user

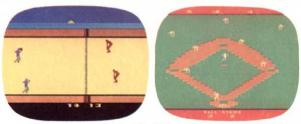
They are more expensive to make than other kinds of controllers and are more subject to wear. Consequently, they break down more often than on/off joysticks. Add to that the fact that some game programs and computer chips are not made to respond to resistance or voltage changes and it becomes clear why they are not

Continued on page 101





NEW ATARI REALSPORTS. THEY'RE IN A LEAGUE BY THEMSELVES.



VOLLEYBALL

These pictures show you how incredibly lifelike new ATARI RealSports video games look.

But even more exciting is how they play. The action is so real, it's unreal. With players that move like real players. Plays that unfold like real plays. With long bombs, sinkerballs, spikes, the whole ballgame.

You get all the challenge of mastering a

BASEBALL

video game with the strategy of a real game.

And unlike some other video sports games,
RealSports lets you square off against the computer as well as against another person.

ATARI RealSports Football, Baseball, and Volleyball are here now. Soccer, Basketball, and Tennis are coming soon.

For a tryout, see your Atari dealer today.

A Warner Communications Company

By ARNIE KATZ and BILL KUNKEL

PROGRAMMABLE PARADE

Defend the Undersea City!

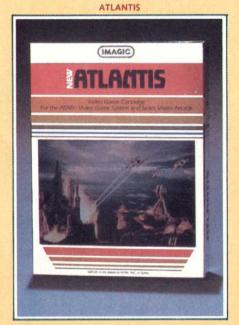
ATLANTIS

Imagic/Atari VCS

Now here's a videogame that's conceptually irresistible, graphically gripping and a blast to play. Dennis Koble's Atlantis casts the gamer as sole defender of the fabled undersea city, which is under a relentless air assault by a squadron of jet bombers.

Atlantis itself is depicted as a domed subsea metropolis surrounded by a series of defensive anti-aircraft batteries. At the left and right ends of the playfield are a pair of angled cannons which point toward the center of the field, while a big gun sits directly between them, aimed straight up.

Attacking aircraft come at the storied city in three waves and at a variety of speeds. The first jet soars across the top of the playfield. If the Atlantean defenses fail to eliminate the plane on



this initial fly-by, the jet reappears halfway between the top of the screen and the surface of the ocean. Failure to blow away the enemy at this level means bad trouble. On its fourth (and last) go-round, the jet skims along just inches above the ocean's surface, raking Atlantis with bombs as it whizzes by

Atlantis is a magnificent videogame. The graphics create a sense of realism that will enthrall the arcader. Explosions are vivid and drenched in vibrant colors. During each round, a small-but-lethal lead ship appears, and if the Atlantean "ack-ack" guns score a hit on this craft, the entire squadron destructs in sequence. A hit on the lead ship causes the target to glow for an instant before bursting into what resembles a mini-solar flare. But the most pleasing visual in a game drip-



ping with them is the final explosion, Atlantis itself shattering into a thousand pieces. As the underwater city blows apart, sharp-eyed players see a tiny escape craft quickly launched into space. This craft turns out to be the Cosmic Ark from the game of the same name by Rob Fulop, sent on its mission to re-populate new-Atlantis.

Atlantis is a cartridge with something for everyone. Primarily, though, it's fun, a delight to look at and play, exciting and challenging. It has a simple play mechanic — moving the joystick left and hitting the action button activates the left-side cannon, and pushing it right or up does the same for the other two. The only problem is trying to imagine why anyone would not like Atlantis, one of the year's finest videogames.

STAR RAIDERS

Atari/Atari VCS

Sharp-eyed readers have undoubtedly noticed that one program has consistently rated at the top of our readers' popularity poll for computer game software — Star Raiders for the Atari 400 and 800 microcomputers. Those who don't yet have a personal computer may well have wondered what all the shouting was about. Now anyone with an Atari 2600 can discover the thrills of piloting a space fighter in this new edition of Star Raiders created especially for the company's

videogame machine.

This is naturally, a slightly slimmed down version of the original destroy-the-dreaded-Krylons-and-save-the-galaxy epic. The amazing thing is not how much had to be cut, but rather how much the designers crammed into this cartridge. A few of the frills are abridged or gone entirely, yet the VCS Star Raiders is an outstanding



STAR RAIDERS (2600)

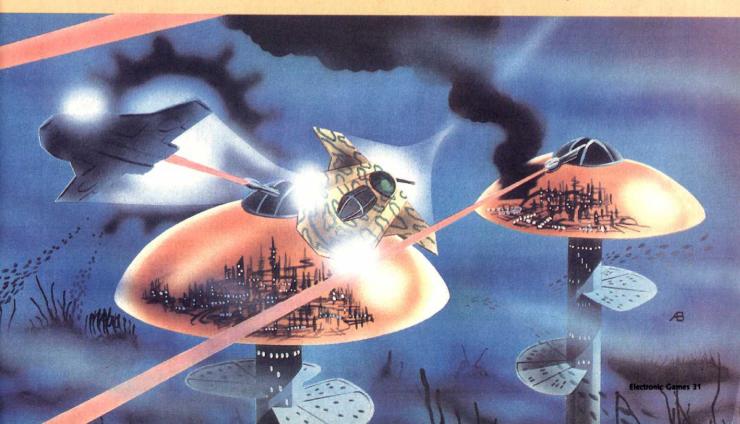
achievement, because the cartridge is remarkably faithful to its computer inspiration. Certainly, this is one of the most ingeniously complex games ever offered for a home videogame system.

The solitaire space piloting contest puts the player at the controls of a star fighter embarked on a perilous mission. The universe-spanning Krylon Empire is on the march, moving from sector to sector destroying star bases which are friendly to Earth. The player (and unseen crewmates, Commander Champion and Li San O'Roaurke) must protect the friendly space sta-

tions while battling three types of Krylon ships in a series of dogfightstyle engagements. Krylon fighters and cruisers are more maneuverable than the gamer's star fighter, but their unshielded hulls can only take one hit from your photon torpedoes before exploding. The Krylon base stars represent the heavy hitters on the enemy side. The base stars are torpedoarmed and have shields which prevent a photon blast at long range from doing enough damage to explode the craft. These must be dueled at extremely close range, making the situation especially dangerous for the doomed planet's lone defender.

To set up Star Raiders for play, the gamer must plug a joystick into the left controller jack and the new Atari video touchpad into the other socket. An overlay provided with the Star Raiders cartridge is then slipped into place on top of the touchpad keys, held securely in place by tabs that project from the top and bottom edges of the thick cardboard overlay. This system allows the player to pilot the space fighter with the joystick while controlling hyperwarp, the attack computer, shields, and selection of fore screen or galactic map display. The attack computer can be left permanently in the "on" position by setting the left difficulty switch to "B". Putting the other difficulty switch to "B" keeps the shields on all the time.

"Set and forget" has its appeal, especially in a game in which so much



is happening at the same time, but score-minded space cadets will want to keep the difficulty switches pushed to "A" so that the computer and shields can be toggled on and off at need. The reason is that every ship activity depletes the energy supply, which can only be replenished by journeying to a sector with a friendly star base and docking with it. Many players will end up leaving the shields (one energy unit per second drain) operational most of the time, while shutting down the attack computer (0.5 energy units per second drain) until the space fighter enters a sector containing enemy ships, is indicated by a "red alert" sound.

The Galactic Display is used for locating your foes. Appropriate silhouettes mark the presence of Krylon ships and friendly star bases, while a blue bar indicates the space fighter's present location. As pilot, use the cursor to maneuver the yellow onscreen cursor so that it is in the sector to which you desire to travel via hyperspace. Pushing the action button starts the trip. The further you want to travel by this super-fast method, the more power you utilize. The two easier difficulty levels prevent the space fighter from making a hyper-jump when it doesn't have enough fuel left, while the two harder levels require the gamer to check the fuel status manually before each hyper-jump.

When the machine emits three tones, it means that an enemy ship is visible in the front display. If the control panel is red, the attacker is actually behind you. If green, it's in front, but still out of range of your twin torpedo tubes. The panel turns blue when the Krylon is visible and within range.

The attack computer tracks two targets at a time, showing them as dots on a small secondary display located in the lower right corner of the forward view. When one of those dots is centered, the torpedoes are locked on the target and need only be fired with a push of the action button. The dot will also change from blue to red if it is locked in tight, giving another visual clue as to the current situation. The higher the level of difficulty, the more accurately the Krylon fighters, cruisers and base stars will return your fire. Damage is indicated on the control panel and can only be repaired by visiting a friendly star base.

The game assigns a rating to each player depending on how efficiently he has completed the mission to save



the galaxy from the Krylon threat. The major factors determining this final score, ranging from Cook to a mystery rank at the top with five sub-grades in each, are the amount of fuel expected, the difficulty level of the scenario and the number of friendly star bases destroyed during the course of play.

Star Raiders is a premium-priced cartridge because it comes with the new touch pad, which will be used as a controller in other upcoming games, but don't let that deter you from adding it to your collection.

GORF

CBS Video Games/Atari VCS

Midway's 1981 multi-screen invasion games makes the switch from the commercial arcades to the home screen in pretty good shape courtesy of CBS, yet another famous company that has joined the electronic gaming gold rush within the last year. Although the graphics are a trifle crude compared to the coin-op—they are about average for a VCS game—the play action is satisfyingly varied.

Gorf confronts would-be space pilots with a four phase mission. The first step is to defeat the horde of gorfs and droinds which are trying to land on the Earth. This phase is a pretty standard invasion game in which the player manipulates a cannon back and forth across the bottom of the playfield while exchanging fire with rows of creatures marching down the screen.

The next challenge is to destroy the Gorfian laser ship which hovers in the orbital zone just above the location of the first mission. A flying gorf and kamikaze invaders function as a protective escort for the laser ship. The best tactic is to work on the screening guards first, because the laser ship will simply be replaced by an identical craft if you blow it up before getting rid of the flying gorf and the Kamikazes.

The ever-resourceful Gorfian Empire next sets up a space warp near the top of the third scenario's playfield. Five attackers zoom out of this hole in space one at a time to attack the player's ship with torpedoes. When you've sent the five attackers to their final reward, it's time to face off against the Gorf flagship. You must score a direct hit on the ship's reactor vent to trigger the multi-colored explosion that signifies victory. The flagship, meanwhile, attempts to eliminate the gamer's craft by firing heat-seeking missiles at it, so executing a skillful move-and-fire sequence is especially crucial at this

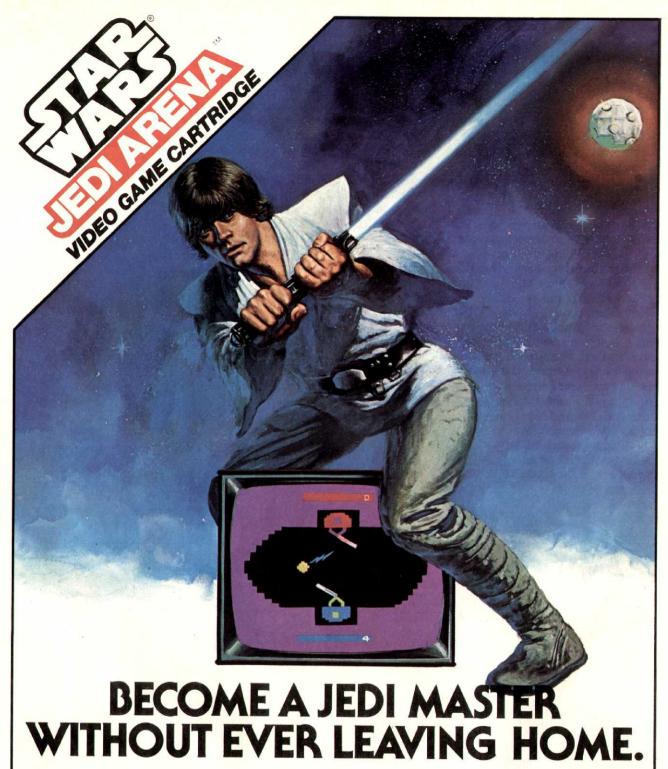
And when you've finally atomized the flagship, you'll only have a few seconds to enjoy the victory. After that, it's back to the first phase of the mission at a higher level of difficulty. There are nine such levels, so few arcaders will wear this cartridge out the first week they've got it home.

GOPHER

U.S. Games/Atari VCS

With Gopher, U.S. Games introduces its new line of "family"-oriented videogames being produced in cooperation with Fisher-Price. Stressing non-violent themes and state-of-theart graphics, Gopher is what the coinop folks call a "cute" game.

Arcaders use the joystick to maneuver an on-screen farmer left and right in an effort to keep a pair of pesky gophers from gobbling up the carrot patch. The garden is represented by three carrots and, as the game begins, a pair of hungry gophers burrow their way onto the playfield at the base of the screen. The voracious vegetarians can tunnel both vertically and horizontally, and they will soon start digging holes to the surface—which is where the farmer comes in. By moving the farmer's hoe over a gopher-hole and pressing the action button, the hole is



In the STAR WARS®JEDI ARENA™ perfecting the skills needed to become a JEDI MASTER takes concentration and practice.

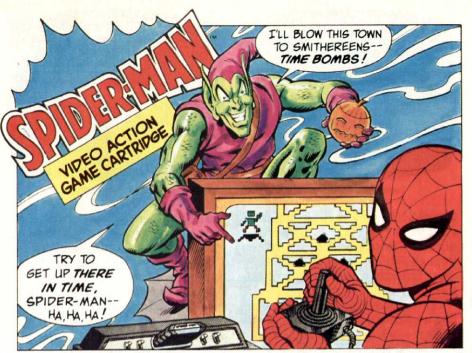
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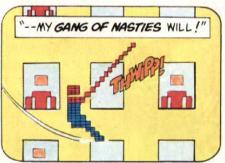


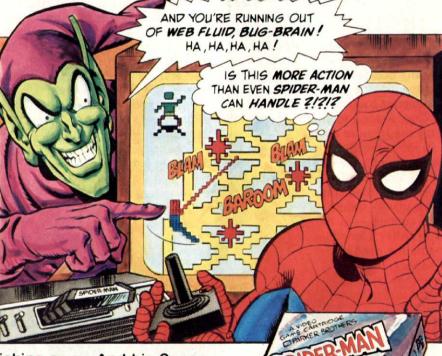












The Goblin's time bombs are ticking away. And his Super Bombs sit fiendishly up on High Voltage Towers. The city is on its knees.

Only Spider-Man's spidey powers can get us out of this! Thwipp! He shoots his web and swings up the buildings to reach the bombs.

Thwipp! He shoots again, escaping the Goblin on his web-cutting jet glider.

But watch out! Goblin and his warped gang of criminals have more sneaky ways to cut your web and plunge you to the streets below.

Can you get Spider-Man to the bombs in time? Your web fluid is getting lower. And time is ticking away. . . .

For your Atari Video Computer System® and Sears Video Arcade®
PARKER BROTHERS

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VENTURE

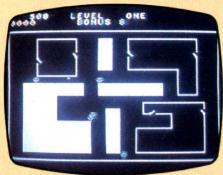
Coleco/ColecoVision

The first five releases for the incredible new ColecoVision not only establish new high water-marks for home arcading, but provide an accurate index of where videogames are at today. The manufacturer has produced a high-graphics arcade hit (Donkey Kong), a science-fiction shoot-out (Cosmic Avenger), a maze-chase (Lady Bug), a whimsical, "cute" fantasy contest (Smurf) and, with this adaptation of the Exidy coin-op, Venture, a superb graphic adventure.

Venture sends the arcader, as the on-screen bow-slinging adventurer named "Winky", through a multilevel (three-playfield) dungeon in search of treasure. Play begins with an overview of the first floor, complete with roving "hall monsters". When Winky enters one of the four rooms on this level, the scene shifts to a close-up of the spot. Each room is guarded by a particular type of monster, hence the 'Goblin Room'', "Snake Room" et al. The exception is the "Wall Room", where the menace consists of four moving partitions, each white hot and capable of incinerating old Wink with the merest touch.

Once inside a room, the object is to grab the treasure and get out. Winky can kill any of the monsters with his endless supply of arrows, but slaughtering the guardians won't win any points, and their corpses are just as deadly - should he make physical contact — as they were when alive. After a lengthy pause the dead bodies disappear, but be-





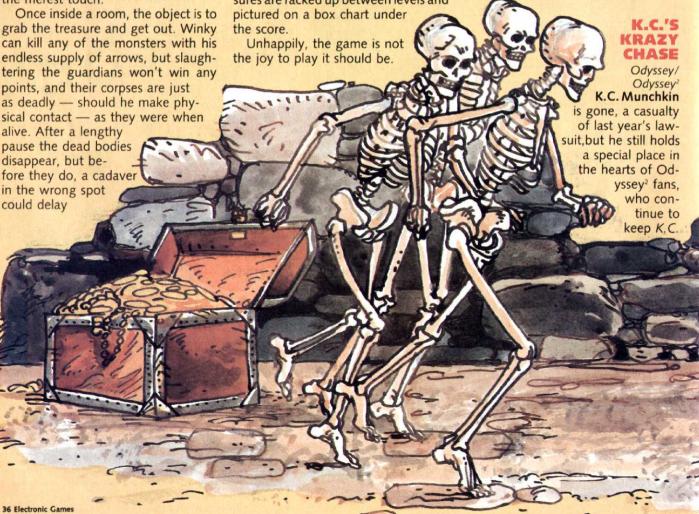
(Left) Inside the Skeleton Room and (right) roaming the halls in Venture

Winky sufficiently that an inevitable visit from the local Hall Monster occurs. These horrors can sweep through virtually anything and they're much faster than the surrogate adven-

The ColecoVision version of Venture is a virtual duplicate of the coin-op original - which, interestingly, wasn't a hit in the arcades. Each room has its own signature music, and when the treasure is successfully looted from a chamber, it is colored red when viewed in the overhead diagram. The monsters are masterfully rendered and beautifully animated, from the flowing bats to the clanking skeletons. Treasures are racked up between levels and pictured on a box chart under

The difficulty is joystick control. Onscreen movement is jerky and slow, response time painfully stiff. What should be free-wheeling play is transformed into awkward frustration. While it's true that the joystick control in Exidy's Venture is not the slickest in the world, duplicating an arcade game's flaws is definitely carrying verisimilitude too far!

It is a tribute to Venture's strength that most gamers will love it in spite of this shortcoming. We hope that such trade-offs will not be necessary in the future, however. The ColecoVision is too good a system to play games that are "almost" great.







(Left) Winky duels the Goblins and (right) avoids the wandering monsters

Munchkin riding high in EG's monthly popularity poll. The original cartridge remains in limbo, but K.C. is coming back as the star of a new game that ought to delight the little electronic rascal's fans.

This maze-chase is one of the first cartridges designed to work with the Odyssey's "voice" speech synthesizer module. It plays very nicely on machines which lack this gadget, but is even more fun when you can hear K.C. chatter away as you use the joystick to steer him through one of five standard mazes. (Like K.C. Munchkin, this cartridge also features a nifty extra; you can easily program your own custom-designed maze using the keyboard.)

The maze corridors are dotted with trees, which K.C. can chomp for points. Unfortunately, the labyrinth is also inhabited by the Dratapillar of Venus. This multi-segment beastie likes to eat the trees just as much as our hero. Of course, what the Dratapillar would really like is K.C. himself for des-

sert. If the Drat's head touches the gallant gobbler, the game is over. On the other hand, Dratapillar segments make a delicious meal

for K.C., who can chomp them at will.

Whenever your on-screen character eats a Dratapillar section, it has an unsettling effect on the monster's hench-creatures, the single-segment Drats which also roam the maze. Eating a Dratapillar segment turns all four Drats white with fright, paralyzing them in place and making it possible for K.C. to munch them for bonus points.

Scoring places a lot of emphasis on devouring the Drats, which are worth 10 points each, and the Dratapillar, worth three points per segment, rather than the one-point trees. There's also a hefty 20-point bonus for wolfing down the entire Dratapillar, so the snake-like being must be your prime objective. (The game resets at a harder level of skill when the Dratapillar is completely eaten.)

The Voice really adds an extra dimension, even if some of K.C.'s little comments do seem to pop up randomly. But when you hear the digital devil cackle delightedly after finishing off another screen, it gives you a very satisfied feeling, indeed.

K.C.'s Krazy Chase is a welcome addition to the Odyssey² game library. The catalog can always stand to be enriched by another smooth-playing action game, and this maze contest is absolutely top

drawer.





E.G. READERS PICK THEIR FAVORITE GAMES

☆Most Popular Videogame Cartridges☆

Position				
This Month	Month	Game	System	Manufacturer
1	1	Pitfall	Atari VCS	Activision
2	3	Defender	Atari VCS	Atari
3	7	Night Stalker	Intellivision	Mattel
4	13	Donkey Kong	ColecoVision	Coleco
5	2	Berzerk	Atari VCS	Atari
6	9	Adventure	Atari VCS	Atari
7	10	Frogger	Atari VCS	Parker Brothers
8	4	Major League Baseball	Intellivision	Mattel
9	8	Star Master	Atari VCS	Activision
10	6	Donkey Kong	Atari VCS	Coleco
11	5	Demon Attack	Atari VCS	Imagic
12		Zaxxon	ColecoVision	Coleco
13	_	The Incredible Wizard	Astrocade	Astrocade
14	_	Astrosmash	Intellivision	Mattel

☆Most Popular Computer Programs☆

Lady Bug

ColecoVision

Coleco

Position				
This Month	Last Month	Game	System	Manufacturer
1	1	Star Raiders	Atari 400/800	Atari
2	7	Castle Wolfenstein	Apple II	Muse
3	2	Pac-Man	Atari 400/800	Atari
4	3	Jawbreaker	Atari 400/800	Sierra On-Line
5	4	Missile Command	Atari 400/800	Atari
6	5	Centipede	Atari 400/800	Atari
7		Mouskattack	Atari 400/800	Sierra On-Line
8	6	Wizardry	Apple II	Sir-Tech
9	_	Preppie	Most Systems	Scott Adams Int'l
10	-	Crush, Crumble,	Apple II,	Automated
		Chomp	Atari 400/800	Simulations

☆Most Popular Coin-Op Videogames☆

Posi	ition		
This Month	Last Month	Game	Manufacturer
1	1	Donkey Kong	Nintendo
2	3	Tron	Midway
3	6	Ms. Pac-Man	Midway
4	8	Galaga	Midway
5	9	Robotron	Williams
6	5	Zaxxon	Sega
7	2	Dig-Dug	Atari
8		Jungle King	Taito
9	4	Tempest	Atari
10	7	Pac-Man	Namco/Midway

Readers Choose Top Games

Since mere quantity of play doesn't necessarily equal actual popularity, Electronic Games bases its standings on the votes of its readers. These lists of most popular games are based on the more than 1000 Reader Polls. We update the "picked hits" lists in every issue of Electronic Games. So send in your votes!

usgames.

"Name This Game" Sweepstakes Official Rules

NO PURCHASE NECESSARY Sweepstakes: Handprint your name, address, telephone no. and local store (name, address) displaying the new U.S. Games Cartridge on an Official Entry Form.* Check your Fifth Prize choice. Failure to do so invalidates your entry. Contest: To enter the contest, include the name you created for the new game. Mail entry separately before closing date, April 30, 1983, to "Name This Game" Sweepstakes, P.O. Box 7961, Chicago, IL 60680.

All sweepstakes prizes will be awarded. Winners will be drawn at random by independent judges. Winning odds depend on no. entries received. Sweepstakes winners submitting a name will be judged in the order originally drawn. First entry to score 100% on following basis is the Contest Winner regardless of any other entries received with identical names. a. Must be legible and free of existing trademark/copyright registrations b. Originality 30% appropriate to new game 30% c. General appeal 30% d. Tasteful 10%. If no entry wins, up to 10,000 additional entries will be judged with judges option to continue until one scores 100%. Contest prize may not be awarded.

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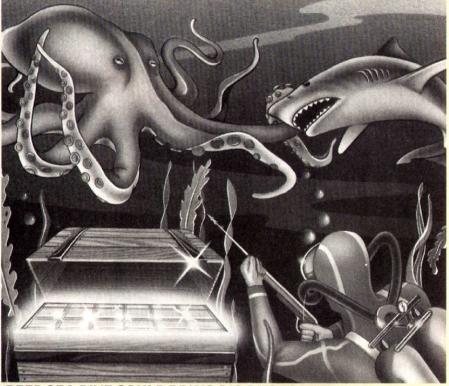
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DEEP SEA DIVE COULD BRING BIG BUCKS

Deep beneath ocean waters you safeguard a sunken sea chest. One that'll make you a millionaire the moment you make it to land! Unfortunately, enter the shark that'd rather make you a meal. You shoot! And shoot again! Angering an octopus who's out to ink you. You're left contending with his tentacles...the shark's swimming faster...then, another disaster! Oxygen's on the outs! You must reach the life line from your buddy above. Un-

 $\star\star\star$

doubtedly, you're dinner...or you'll drown in desperation...unless you're careful...or awfully quick.

Good luck!

Entry form can also be obtained by mailing to Entry Request, P.O. Box 4912, Chicago, Illinois 60680.

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For The Big Game Hunter









An incredible medical journey is about to begin. You and your submarine are to be reduced to microscopic proportions and injected into the blood stream of a critically ill patient. You must navigate past deadly Defense Cells, Bacteria, Antibodies and Enzymes to destroy a lifethreatening blood clot near each patient's brain. Prepare yourself for one Fantastic Voyage!

Those cranky crabs are trying to drive the ducks from their once quiet pond. Imagine, crabs taking to the air armed with bricks and bombs! Luckily, Deadly Duck has a few tricks of his own. His gun barrel bill can unleash a bevy of crab cracking bullets at a moment's notice. Look out, Deadly, here comes another brick! It takes more than luck to play Deadly Duck.





You've got to be cool and you've got to be steady to play Fast Eddie. Eddie is on a wild treasure hunt, climbing up and down ladders everywhere in search of prizes. Things would sure be a lot easier if it weren't for all of those pesky little Sneakers running around. They literally keep him jumping!

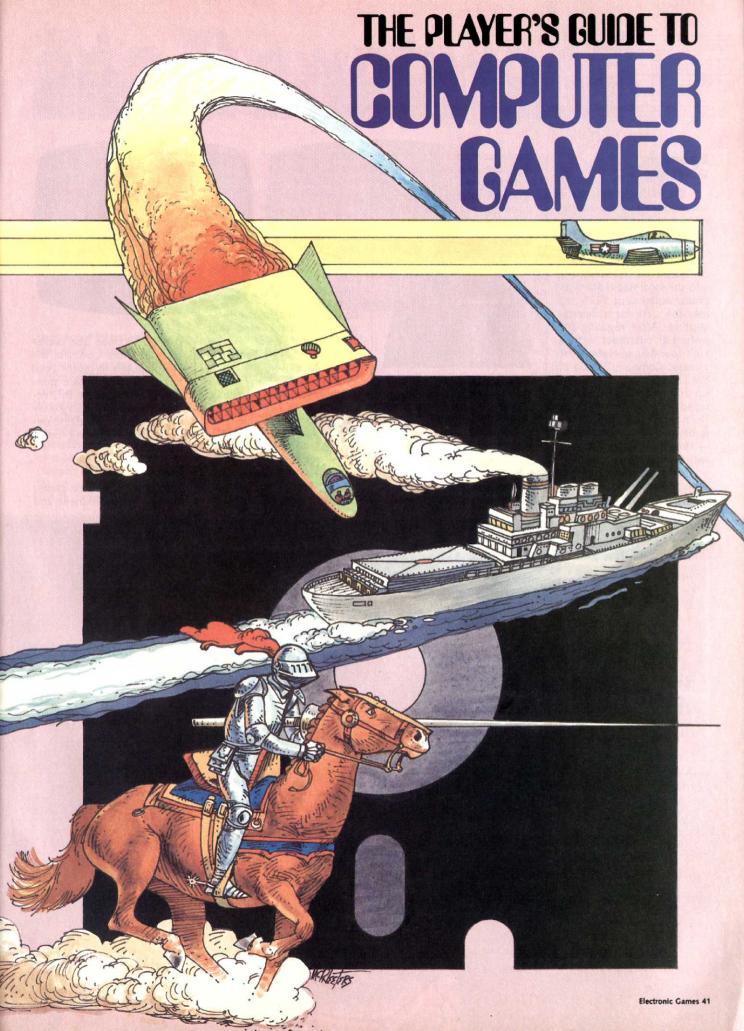
Sirius

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Sacramento, CA 95827, (916) 366-1195.



Showdown in the

Space is Waiting. . .

If the following little scene occurred once during the early days of home computing, it probably happened a thousand times:

The would-be personal computer purchaser strolls into the local Radio Shack or similar outlet circa 1975 and asks the clerk for a demonstration. After regaling the potential customer with a high-sounding spiel about the glorious Computer World of ·the Future, the clerk powers up the machine, boots a taped program and - faster than you can say "Jack Robinson" fifty or sixty times - the small screen lights up with computerized tic-tac-toe or nine-man morris.

Such demonstrations certainly impressed pioneering

home computerists of the day, but it is doubtful that video tic-tac-toe could've sparked anything like the booming electronic gaming hobby we know today. The



negligible popularity of such simple contests — admittedly all that the early micros could handle — might have put gaming with computers on hold for several more years.

Things didn't turn out that way, of course. New types of games broadened interest in computer arcading by offer-

ing many different types of mental and physical challenges.

Many sources of inspiration helped bring modern microcomputer gaming to its present level, but none was more important than science fic-

tion. When imaginative programmers discovered that putting short vertical lines on either side of a small circle produced a tie-fighter a la "Star Wars" that any gamer would instantly recognize, it opened up a new world of possibilities.

Ever since the first "trek"type space piloting and combat programs burst onto the scene, the connection between science fiction and computer gaming has been

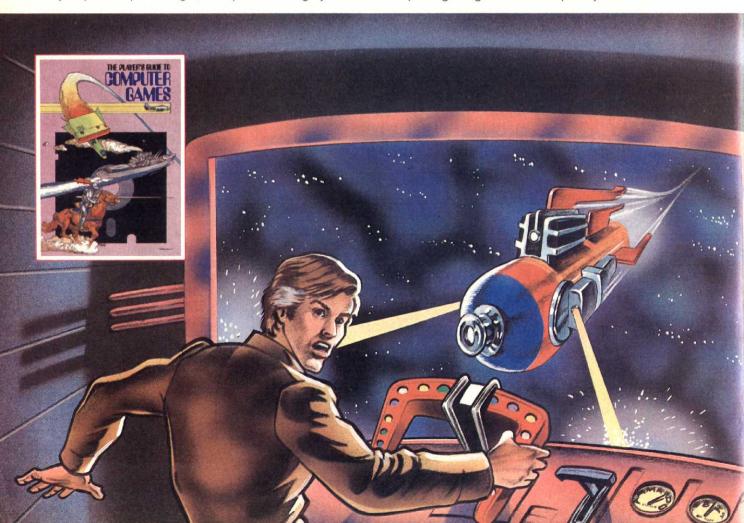


STAR RAIDERS

strong and close. The availability of more powerful microcomputers in recent years has enabled software publishers to build on this relationship to provide a galaxy of outer space contests to delight game-playing computerists.

Stop, Thief!

Most science fiction games portray the excitement and



Fac Future





dangers of interstellar war to the death. Bandits, a multiscenario invasion game by Sirius Software, instead focuses on the perils of crime on the cosmic scale.

In this colorful and varied arcade contest, the gamer operates as the security chief of a lunar base bedeviled by thieves from outer space. Wave after wave of deepacross the screen and attempt to pick up a load of the base's equipment. The goal is to prevent the robbers from carrying the goodies back to their world.

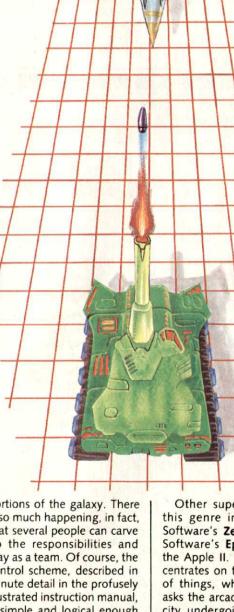
There are a variety of alien criminals with larceny on their minds. The arcader's cannon is protected by a shield, energized by thumping the space bar on the Apple's keyboard, but the available energy for this device is squeaky tight. The player will frequently have to face whole swarms of bandits without any form of protection beyond a quick hand on the joystick in order to save the shields for times when lack of such protection can spell certain elimination.

Flying Through the Universe

Star Raiders, by Atari for the 400 and 800 computers, gets many votes as the ultimate "trek" program. It was the first to blend the universespanning strategic phase of locating the enemy with pulse-pounding ship-to-ship dogfighting rendered in high resolution graphics. Small wonder that Star Raiders has placed at the top of every single reader popularity poll conducted by EG since the magazine's inception.

Apart from the often stunning visuals, the underlying strength of Star Raiders is that it gives the player a lot to do. from picking which of several displays to show on the screen to navigating through hyperspace to reach distant portions of the galaxy. There is so much happening, in fact, that several people can carve up the responsibilities and play as a team. Of course, the control scheme, described in minute detail in the profusely illustrated instruction manual, is simple and logical enough to be handled by a solo spacefarer.

Other superior games in this genre include Gebelli Software's Zenith and Sirius Software's Epoch, both for the Apple II. The latter concentrates on the tactical side of things, while the former asks the arcader to protect a city undergoing reconstruction from additional enemy attack.







Death Comes from Space

The invaders from the void are launching a rocket attack at the six cities lined up across the bottom of the screen. You

command the defense, using a joystick-directed cursor to target the incoming missiles and destroy them with your own defensive rockets. That's the concept of Missile Com-

mand, a coin-op hit that has been, if anything, more successful as a home game than as a pay-for-play machine.

Atari's version for the 400/800 systems is probably the best of all the editions. Although there is only one command center under the player's control, this makes it easier to apply sophisticated strategy than in the somewhat busier and more frenetic commercial arcade device.

Non-Atarians may want to investigate **ABM**, a fairly similar program for the Apple II by Muse Software. Here, too, the idea is to fire at the incoming missiles and prevent them from flattening the cities under your protection.

The lack of a home tracball controller has frustrated true *Missile Commanders* for some time, since quick cursor movement is the road to victory. Both WICO and Atari

will rectify this lack within the next year or so, which should gain even wider acceptance for this outstanding design.

Classic Space Thrills

It would be impossible to cover science fiction computer games without at least mentioning the three great standard programs — Space Invaders, Asteroids and Galaxian. Year in and year out, these three games have held their popularity against the encroachments of newer — and often more intricate — games.

Space Invaders probably deserves credit for sparking the commercial videogame boom back in 1979. Though it has vanished from all but the largest arcades, SI is still very much alive and well in home computerland. Atari's version

FLEEING TINROUGH TINE LETINAL LABURINTINS

Those A-maze-ing Mazes

Electronic maze games are a fairly recent phenomenon, but the lure of the labyrinth's twisting and turning corridors has called out to mankind since the dawn of civilization. The myth of Theseus and the Minataur, in which the legendary hero penetrated the mighty beast's maze-like fortress, delighted citizens of the ancient world while paperand-pencil mazes are still a popular diversion for young and old alike.

Mazes have added a fascinating strategic element to electronic gaming since Pac-Man first gobbled his way into the hearts of arcaders all over the world. The presence of an on-screen labyrinth

turns movement from a series of mad dashes back and forth across the playfield into a fine art in which the player must plan his route of movement carefully to arrive safely at the desired destination.

There are three principal types of electronic maze games:

Maze-chases. In this type of contest, in which Pac-Man and Ms. Pac-Man are the most popular examples, the player's on-screen representative is generally a weak character who must avoid the menace of stronger pursuers while picking up objects lining the corridors while passing over them.

Maze-shoot-outs. This is a hybrid which combines elements of the maze-chase with blast-'em-up action. While there may be objects which must be acquired, the onscreen character must also duel with armed enemies patroling the playfield. Maze-exshortest plorations. possible time. This type of game is the closest electronic equivalent to the Galloping paper mazes, men-Gobblers tioned earlier. The Pac-Man, availwhole idea is to able in a fine find the single home edition by usable path Atari for its 400through the convoluted. 800 computers, is layout in the classic gobble game which



for the 400/800, originally introduced on cassette, is now available in the more convenient ROM cartridge form. It is a good game, even though the revised graphic treatment may be too dissimilar to the coin-op to please real fans. These purists are advised to check out Rocklan's Super-Invaders, a 400/800 game that is much closer to the quarter-snatch-

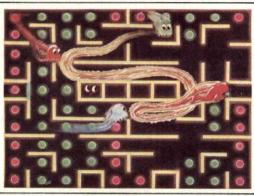
ing original.

Asteroids' unpredictability proved a refreshing change from the pattern laid down by Space Invaders. The use of a vector graphics monitor in the coin-op version has frustrated attempts to directly translate Asteroids to the home screen. though Atari's 400/800 edition is acceptable. However, the thrust-based movement system has cropped up in a number of other games. Star-Maze, by Sir-Tech for the Apple II, may well be the best of these distant cousins. In it, the player pilots a small space cruiser through a labyrinth, only a portion of which is visible on the screen at any one time. This maze is filled with enemy ships to fight, 'power jewels' to collect, and careening meteors which break into small rocks when

struck by your weapon.

Although, Galaxian, something of a sequel to Space Invaders, did well in the commercial amusement centers, there's a bit of a shortage concerning home computer programs. The best of the crop is Galactic Chase for the Atari 400/800. Fortunately, it reproduces enough of the true arcade action to keep Galaxian-lovers happy for many moons to come.

Now that Atari has published a 5200 Galaxian, perhaps we'll soon see one for the 400/ 800.



established the broad outlines for this category of contests.

Pac-Man's strongest suit is its elegant simplicity. No bank of bewildering buttons or 50page rule book gets in the way of a player's enjoyment of this beautifully conceived design. This quality goes far to explain why Pac-Man is often the first game a newcomer to a coin-op arcade will try. Its pocket universe is instantly understandable, though its wealth of strategic possibilities keeps players' eyes glued to the screen.

Jawbreaker, from On-Line Systems, is an Atari 400/800 program that ties a relatively standard Pac-style maze setup to the novel theme of a romp through a candy store. Entrancing graphics, highlighted by the toothbrush that comes out to clean the gamer's on-screen chompers between rounds, and charming sound effects like the rendition of "Raindrops Keep Fallin' on my Head" that opens the action, stamp this disk a winner.

Another intriguing gobble game for the Atari is Ghost Hunter by Arcade Plus. The added wrinkle in this one is that the player can, by eating a power pill, change into a ghostly gun and shoot the pack of nasties chasing him.

Datamost has published a pair of entertaining mazechases for the Apple II, Snack Attack and Money Munchers. The former is a colorful design in which a whale swims through the maze eat-

PAC-MAN ing up the food, while the object in the latter is to munch all the dollar signs before the money munchers get them first. Snack Attack alternates among several different mazes, while Money Munchers creates a new labyrinth at random for each round of play.

Finding the **True Path**

Exploration mazes. though admittedly the least



popular of the three main types at the present time, hold an attraction for many. Such games generally give the player a "mouse" eye-view of the maze configuration, though there's usually an opportunity to get at least a brief look at the overall layout.

Both of the best-known maze-explorations are designed for use with the Atari 400/800 - Thunder Island (A.N.A.L.O.G. Software) and Captivity (PDI). The PDI title, already the best one on the market, is due to get even better shortly, since the company plans to have a redesigned and upgraded version in the stores by the time you read this. The new version will turn Captivity into a semiadventure contest, as players will hunt for treasures and dodge dangers while trying to figure a way out.

Using Your Head

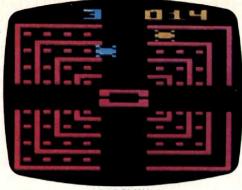
Most maze games reward hand-eye coordination richly, because they require a lot of intricate steering with many quick turns and reverses of direction. There are, however, a few significant exceptions.

Mission Escape, designed by CE Software's Jim Jacobson for the Apple II, turns the usual maze-shoot-out situation into a heavy strategy game by dramatically altering the movement scheme. Instead of allowing continuous input, it prompts the human player to enter a short series of moves followed by a similar interval during which the computer-controlled forces go on the march.

Lazer Maze, an Apple II program from Avant-Garde Creations, is represented as a







DODGE 'EM

simulation of a system of justice that prevails in the far future. One combatant (the player) must fire his lazer pistol into the maze and then predict its exit point. The lords of the maze materialize the computer-controlled foe at this point. If the human player correctly guesses where the beam leaves the playfield, the opponent is destroyed by the blast. Otherwise, the tables turn and the foe lobs a deadly bomb that is virtually certain to destroy the computerist's on-screen surrogate. The catch is that the playfield is dotted with mirrors which can reflect the lazer beam, making it quite challenging to quickly trace the expected course of the shot in the least possible amount of time.

Corridors of Danger

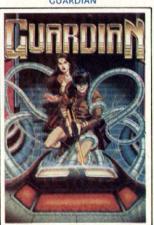
Although Berzerk, the title which did most to build the popularity of this type of game, has not reached the microcomputer market yet in an authorized edition, it hasn't prevented designers from applying the concept to quite a few computer programs.

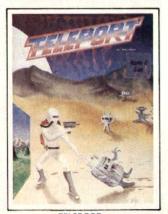
K-razy Shoot-out, by K-Byte for the Atari 400/800, is a smoothly executed mazechase on ROM cartridge. The computerist directs an onscreen character through a series of rooms guarded by laser-firing robots who pop into view at random points along the walls. Its sophisticated scoring system gives accurate marksmanship its due, but places great stress on maneuvering so that the robots destroy themselves by shooting each other or stumbling into a wall.

More similar to the well-known maze-shoots are Borg (Sirius Software) and Thief (Datamost), both of which are playable on the Apple II. In both, players move from robot-filled room, blasting away at attacking androids and dodging the sinister stalker who enters the fray when the player's on-screen character stays in one particular room too long.

Guardian, from Continental Software for the Apple II, tests the player's mettle against a series of increasingly dangerous mazes, including a couple with invisible, deadly

GUARDIAN





TELEPORT

walls. The gimmick here is that the hero begins each round completely surrounded by a ring of assorted creatures. As soon as the Guardian fires the first shot against the order of encircling enemies, all of the monsters make a beeline for him. He must dodge and shoot until he reaches the teleportation chamber, which randomly moves from corner to corner after each shot is fired.

Teleportation also figures importantly in Teleport, the latest Apple II creation from Cavalier Software. The idea is to pick up one of the aliens which has gated in from another dimension and conduct it to the on-screen teleporter which will instantly ship it back from whence it came. Needless to say, it moves around quite a lot during the course of play, which makes completing the mission something less than a snap. It also doesn't help a bit that the player is absolutely defenseless from the time he stuns an alien until it is safely shoved through the telepor-

Driving the Maze

Walking or running isn't the only way to travel through one of these electronic labyrinths. Some games help the on-screen character save some shoe leather by having him ride up and down the snake-like corridors in some sort of vehicle.

Dodge 'Em, in which the player attempts to pick up dots while avoiding a collision with one or more "crash cars" is the original driving maze. It has proven a winner for Atari as both a coin-op and VCS cartridge.

Match Racer, by Synapse Software for the Atari 400/800 systems is a superduper version of the concentric track design pioneered by Dodge 'Em. With twice as many possible pathways it becomes much more difficult to develop the "best route", and the player is thus forced to make many split-second decisions instead of merely carrying out a pre-determined pattern.

David Husch's Mars Cars, by Datamost for the Apple II, is an automotive treasure hunt on the red planet. Players use either joystick or keyboard to blast the maze barriers and get the four prizes on each level, while robot-controlled "mars cars" defend their turf by trying to ram into you. Once all four prizes are acquired, you simply drive through the warp door to reach the next in a series of 16 progressively more difficult playfields. Re-



BORG

moving the maze barriers scores points, but it also gives the cars more room to roam.

Killer cars also provide the opposition in Crazy Mazey, by Ronald Meadows on Apple II disk. This keyboard-activated arcade-style game requires the player to steer a car through a succession of mazes, picking up the six bundles of cash scattered through each. Also cruising the grid-like playfield are computer-controlled death cars which always aim for a round-ending crash.

THE WORLD MARCHES TO WAR!

Of Battles and Bytes

People have played war games for nearly as long as they've been fighting the real thing. As most gamers know, chess is actually a highly abstract representation of medieval combat, complete with knights, castles and royalty.

Far less abstract in conception are the board war games first introduced by the Avalon Hill Company in the late 1950's, still popular with millions of armchair generals today. These usually involve moving pasteboard counters representing troops over a map divided into spaces by overlaying a hexagonal grid. Luck plays only the most minor role in such contests, since the ratio of attacking to



NAPOLEON'S CAMPAIGNS

defending forces, modified by terrain and other factors, usually suggests the outcome of any given battle.

Non-electronic war games are not, however, without their drawbacks. They often take a long time to set-up, require a pair of reasonably well-matched opponents and

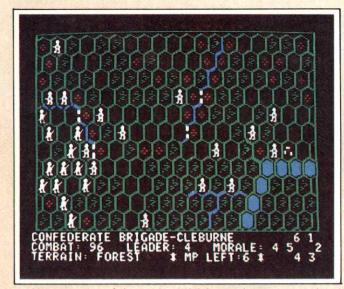
eat up at least a couple of hours of playing time for each game.

Computerized war games, which have only appeared in a big way during the last 12-18 months, are designed to overcome all three of these problems. Set up is either automatic or quickly accomplished with a few keystrokes. Solitaire versions are included in most programs and speed of play is noticeably increased over most conventional war games.

Battles of Olde

While World War II is still the favorite setting for war games, many players are attracted to the seemingly simpler and somehow more romantic campaigns of the more distant past.





In SSI's recreation of the Battle of Shiloh, a grid system is employed

Avalon Hill's Microcomputer Games Division has recently published Legionnaire, a slightly fanciful version of Caesar's conquest of Gaul (modern day France). The solitaire player takes the Roman banner and can adjust the difficulty of the game through selection of the tribes to be fought and the number of legions chosen to do the job. Some tribes are easy pickings for Caesar's infantry and cavalry, while others can give as good as they get.

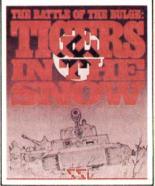
This game, designed by Chris "Eastern Front" Crawford, may be particularly suited to first-time computer war gamers. It's straightforward joystick-activated control system and the small number of units involved in the game make it a more approachable program than some of the more complicated battle programs.

Strategic Simulations has justly earned raves for its excellent line of electronic war games. Napoleon's Campaigns focuses on the continent-spanning military exexcursions of the man from Corsica, while the Battle of Shiloh allows gamers to refight one of the crucial battles of the

Electronic Legends of World War II

World War II was the most colossal conflict in the history of humanity, with fighting taking place in almost every corner of the globe. Its historical effect on the modern era - and its tremendous personal impact on the lives of hundreds of millions of individuals - has made WWII the focus of more interest among computer war gamers than any other military event.

As is the case among board war gamers, electronic generals are especially enthusiastic about games based on the titanic struggle between Germany and Russia on the east-



TIGERS IN THE SNOW

ern front of the struggle. Ti-

gers in the Snow (Strategic Simulations), Eastern Front (Atari) and Dneipper River Panzerblitz, playable solitaire.

The most intriguing game based on the Pacific theater of operations is Strategic Simulations' Guadalcanal Campaign. This is the first electronic "monster game", a term war gamers apply to a simulation that treats a battle or campaign in such minute detail that it may take hundreds of turns to refight the whole battle. Fortunately, Guadalcanal Campaign employs a particularly simple routine of play that leads the gamer through the action virtually effortlessly. As a result, Guadalcanal Campaign probably plays two or three times faster than a comparable conventional boardgame. If you've always wished you had time for one of those multi-map, 200piece conventional war games but never did, this one is definitely worth a try.

War Today and Tomorrow

Smashing out of recent headlines comes Southern Command from computer war gaming's number one publisher, Strategic Simulations. The Arab-Israeli War was a testing ground for weapons and tactics developed by the major superpowers, as well as a human drama of major proportions. Now you can find out if you superior Arab forces.

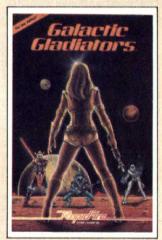




teristics makes for an unusually varied and enjoyable space war contest that puts the emphasis on planning rather than action-game skills.

Hand-to-Hand Fighting

In creating a military simulation, one of the designer's most important decisions is choosing the scale. The same engagement can be looked at from an overall



GALACTIC GLADIATORS

strategic level involving entire armies and navies moved as though they were single entities, an operational perspective in which divisions, regiments and brigades are the concern in a tactical contest in which the doings of squads and platoons are of central interest.

While most war games treat the operational or strategic aspects of the conflict in question, more and more attention is being paid to small unit engagements in some of the newer titles. Good examples are Galactic Gladiators and Cytron Masters, two of the Rapidfire Games recently introduced by Strategic Simulations. The former presents hand-tohand fighting between small elite units in the far future, while the latter revolves around fights between custom-designed one-man air cars.

Swashbuckler, from Datamost, takes a romantic period from the past as its inspiration, rather than growing out of science fictional speculation about the nature of war in the future. In this solitaire contest, the player is a brave swordsman who might fight a veritable army of pirates on the deck of his ship. Wellthought-out keyboard controls permit the player to move the on-screen hero around and execute several offensive and defensive sword-fighting maneuvers.

War — Arcade Style

games with

What could be a more natural backdrop for a target or shooting game than war? This accounts for the fact that there are many titles which are arcade



a military theme rather than realistic military simulations.

One of the cleverest of these is Night Mission, a video pinball disk from Sub-Logic. Winner of a 1983 Arcade Award for Best Computer Audio/Visual Effects, Night Mission translates the idea of a night bombing raid over Europe into an action-packed electronic flipper game with loads of user-modifiable features.

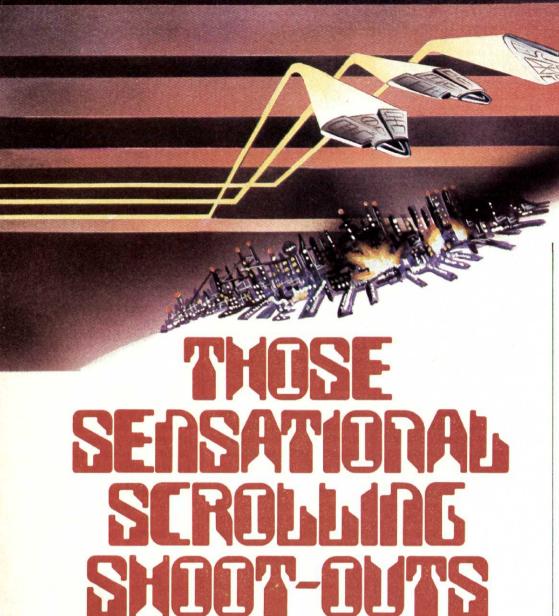
Broderbund's Sea Fox for the Apple II involves the WWII-era running conflict between hunter submarines and destroyer escorts charged with protecting all shipping. Sea Fox puts the player at the helm of a heavily armed sub which must sink a series of convoys against the opposi-

tion of fleets of enemy submarines and destroyers. High resolution graphics and multiple scenarios of increasing difficulty are among the program's best features.

Kamikaze by Hayden Software, on the other hand, echoes the air-sea battles which frequently occurred in the Pacific phase of the Second World War. The arcader commands a surface vessel which must shoot down the aircraft passing by overhead before it is bombed or becomes the victim of a suicide attack by one of the planes.



FARITSWORT





Here Comes Trouble

Once upon a time, the boundary lines of a single play-screen hemmed in videogaming action. If a player's character reached the edge of the picture, only one of three things could happen:

- 1. The character rebounded in the opposite direction.
- The character destructed instantly upon contact with the edge.
- The character vanished briefly, only to reappear at the corresponding spoton the opposite edge.

The development of scrolling for electronic games introduces a fourth possibility: The entire playfield "pans" in the direction of movement so the character never lacks for running room.

Although sports simulations and adventures use scrolling quite extensively, arcade programs represent the most exciting application of this feature.

There are two main varieties of scrolling shoot-outs,

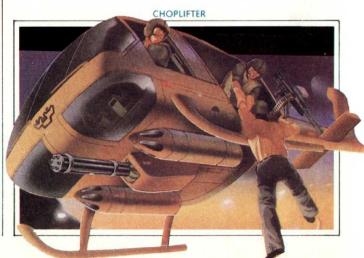
mono-directional and duodirectional. The first category consists of games in which the scenery moves slowly across the screen in a constant direction. This type of scrolling shoot-out gives the player little or no chance to move back over terrain that has already scrolled past. The best-known example of this type of game is **Scramble**.

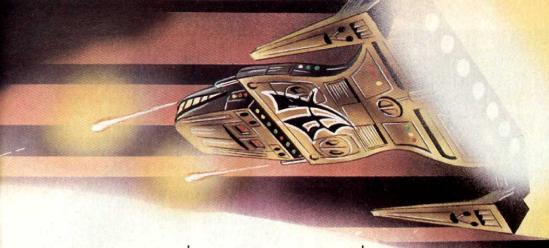
The duo-directional format sets up a situation in which the game actually takes place on a number of different screens connected edge to edge. The gamer's on-screen representative — usually some sort of armed craft — can go back and forth at will, moving from screen to screen as necessary. The most familiar duo-directional scrolling shoot-out is **Defender**.

The virtues of the scrolling shoot-out are immediately obvious to any game fan. They generate a very high level of excitement as the player runs the gauntlet of assorted dangers.

A Mission of Rescue

They won't release the hostages. They've got your citizens under close arrest in a series of barracks. Your mission: pilot your helicopter from a reasonably secure launch pad to where the hostages are being held and ferry them to freedom.





Of course, the captors aren't going to meet you with open arms and a brass band. Enemy tanks patrol the area around the barracks, and overflights by rival jets are also fairly common.

High resolution graphics for Choplifter (Broderbund) are among the best you'll ever see in a game for the Apple II. The helicopter can be turned to face due East or West - or even point right at the player during an anti-tank strafing run. Animation of the hostages is also fine. When the whirlybird lands near a barracks building which it has previously blown open, the captives run across the screen toward the 'copter from all directions.

There are three on-screen scoring indicators. One notes the number of hostages who have been safely delivered to your home, the second indicates how many hostages are actually in the helicopter, and the third shows how many hostages have perished during the rescue try.

Perils of the **Red Planet**

winning program originally troduced as part of the Atari Program Exchange (APEX),

Caverns of Mars, a prize-

has successfully made the

big jump to the company's regular software line for the 400/800 computers.

mono-directional scroller is somewhat unusual in that the playfield moves up the screen instead of to the right or left. The goal is to pilot your spacecraft down the tunnels that honeycomb the red planet and destroy the installation at the center. Once that is accomplished, the gamer has to get the lead out and race upward through the tunnels before the explosion of the installation catches the ship in its wake.

Running the Gauntlet

Protector, originally created by Mike Potter for Crystalware, appeared in a much improved version for Synapse Software during 1982. Now this duo-directional blast-'em-up has been released for a third time as Protector II. It's worth untangling the confusion of the titles if you own an Atari 400 or 800 with 32K of memory, however, since the latest edition is, by all odds, the best yet. Perhaps Mike Potter will continue to revise this multi-scenario scroller every year or so to keep it right up with the state of the art. But if you're too impatient to wait for Protector Mark X, you

can't miss with this title's latest incarnation. Absolutely outstanding.

Tony Suzuki displays his brand of design artistry in

Star Blazer, an Apple II program that boasts some of the most intricate graphics that ever decorated an arcade game. Any

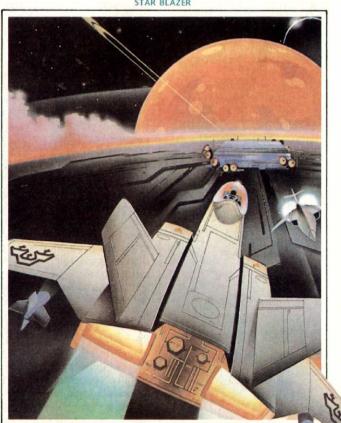
doubters are encouraged to carefully observe what happens when one of the periodic resupply missions drops a care package into a tree instead of into the lap of your attack fighter.

Neptune, an Apple II title from Gebelli Software, takes the mono-directional scrolling shoot-out beneath the waves. You command a well-armed submarine with which you must blast a pathway through to reach the undersea foes Shooting and avoidance scenarios are both included, which provides the kind of

variety that extends the playlife of a program.

Another excellent multiscenario scrolling shoot-out is Starblaster by Picadilly Software for the Apple II. One of the most unusual features of this program is that it has an unusually complete demonstration mode. You can see all of the scenarios clear to the end of the line (the alien super-ship) even before you get good enough to penetrate that far during a real round of

STAR BLAZER



THE MIND



When E. Gary Gygax and Dave Arneson invented the nonelectronic game that eventually reached the marketplace as Dungeons and Dragons, the main idea was to provide some interesting between-battles local color for fantasy miniatures campaigns. It wasn't long, however, before other publishers like Game Designers Workshop began applying the concept of role assumption games to other settings, including science fiction.

Computer adventures are, of course, a development growing out of the earlier non-electronic role-playing contests. With examples of themes on which to base computer adventures spread out before them, programmers have refused to be restricted to only doing adven-

ture disks with a fantasy theme.

One of the most popular categories is the science fiction computer adventure. Although some action adventures and illustrated adventures have appeared, textonly seems to be a popular format for this type of disk. The idea, evidently, is that many players would rather imagine their own spaceships. aliens and unexplored worlds rather than deal with relatively primitive on-screen representations of such things. Of course, the way graphics are improving these days, it won't be long before SF adventures vie with cartoons or even special movie effects in the visuals department.

Champions of the **Spacelanes**

The designer of the celebrated Empire of the Over-Mind has now produced a new title called GFS Sorceress, usable on most of the popular microcomputers. As Joe Justin, expelled into deep space for a murder which he did not commit, you must find and repair a spaceship (The GFS Sorceress of the title) and then set about clearing your name. This involves visiting several different planets which are all components of the interlocking riddle, which upon solving, will restore Joe Justin's good name.

manity. Like other Infocom games, this one is beautifully packaged (in a plastic flying saucer) and also contains supplementary materials which may well come in handy during the mission.

Another fine science fiction mindbender is Cyborg, an Apple II disk written by SF author Michael Berlyn. He has done a fine job, too, when it comes to crafting a highly distinctive test of the player's reasoning powers. Can you

find out what happened to wipe out your short-term memory in time to thwart the crisis that menaces you?

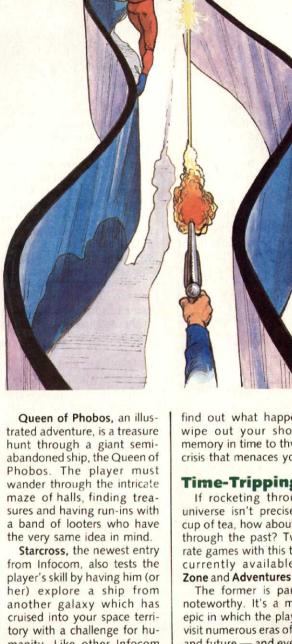
Time-Tripping

If rocketing through the universe isn't precisely your cup of tea, how about a jaunt through the past? Two firstrate games with this tome are currently available, Time Zone and Adventures in Time.

The former is particularly noteworthy. It's a multi-disk epic in which the player must visit numerous eras of the past and future - and even take a short trip to another planet in order to prevent a doomsday device from wiping all life from the face of the Earth.

Mystery and Intrigue

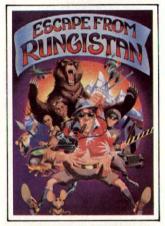
As previously mentioned, the year just ended saw a great expansion in the subject matter of computer adventures. Besides the fantasy quests and science fiction odysseys, designers have also



turned their hands to sharply different adventure game topics.

Currently, there's quite a vogue for mystery and espionage games as a welcome change-of-pace from the more "other worldly" types.

By all odds the best of these is Infocom's **Deadline**. You're a detective with only 12 hours to solve a murder at the Rubner Mansion. Not only



ESCAPE FROM RUNGISTAN



KABUL SPY

does this text-game allow players to communicate in complete sentences instead of just cryptic verb/noun word phrases, but the non-player characters seem to take on lives of their own, scurrying around the mansion on whoknows-what sinister errands.

Sirius Software has published a pair of really unorthodox adventure programs. Kabul Spy sends the gamer behind the Iron Curtain to bring a noted scientist back to the free world, while Escape from Rungistan is based on the idea of a vacation going haywire, necessitating a break from the Rungistan jail and lots of runnin' and hidin'.

Mission Impossible, one of the original Scott Adams Adventures, has gotten a facelift that should secure a much wider audience than it captured the first time around. The new edition, part of Adams International's Saga series, adds high-resolution color illustrations and, if you have a Votrax synthesizer, a full complement of speech and sound effects.

Realms of Fantasy

Of course, the world of swords and sorcery has sparked the creation of more adventure games than all other sources combined. There's something about the thrill of saving the day with a timely spell or deadly sword-thrust that fascinates a good number of computerists.

Wizardry, by Sir-Tech for the Apple II, is generally regarded as the best fantasy role-playing game on the market — and with excellent reason. Although no comput-



er game yet invented can match the creativity of a topflight live dungeon-master, Wizardry includes more of the features adventure gamers want most than any other title. For instance, there are sharply delineated character classes, a wide assortment of treasures and monsters and a well-animated

underground maze which is viewed from the perspective of someone actually stalking down the twisting and turning halls.

Those who've already mastered Wizardry will want to try their hand at Knight of Diamonds, an adventure module for the most powerful characters who have already survived the challenge of Wizardry. More such modules are promised as is a deluxe edition for the 64K IBM Personal Computer.

Another program with great scope is **Ultima**, an Apple II

game

ublished by California Pacific. The novel wrinkle here is that time passes at an ever-accelerating rate as gamers explore the expansive world depicted in this action adventure. Eventually, the technology advances to the point at which you can actually hop into a rocketship and journey through space in search of new thrills. Another fantasy adventure on the grand scale is Swordthrust, the creation of Don Brown. Like Wizardry, this is a multi-scenario series. That is, when you've come to the conclusion of one adventure, you can just buy a new disk which contains another one. Many adventurers hold the belief that this series shows the closest similarity to non-

electronic role-

assumption games.

Crossing the Road

It is extremely doubtful that anyone reading this magazine made it through kindergarten without hearing the riddle, "Why did the chicken cross the road?" Several companies, noting the success of Freeway, the VCS-compatible cartridge from Activision, are now trying to help computer gamers answer this question.

Frogger, by Sierra On-Line for the Apple II, is a faithful translation of Sega's popular pay-for-play machine. All the play-action, sounds and graphics of the original have apparently survived intact, and this computer edition is a "must buy" for anyone who has ever spent time at the local commercial amusement center trying to steer the amphibian through the traffic and across the river to home.

Quite similar, albeit with a somewhat different graphic treatment, is **Cricketeer**. This time, players use the keyboard



THE COMPUTER ARCADE

controls to hop the gallant cricket to a protected haven.

Finally, for those who enjoy a dash of way-out humor, there is Scott Adams' **Preppie.** This arcade game, available for just about every system, gives you the chance to do something drastic to all those folks in the alligator shirts.

A Lighter Touch

Most computer arcade games are pretty much sober-sided affairs, but a dash of humor does manage to worm its way in occasionally. One of the best at injecting a note of humor into otherwise challenging games is Mark Turmell.

Beginning with Sneakers and continuing through Beer Run and FreeFall, all marketed by Sirius Software, Turmell has displayed a deft touch when it comes to creating cartoon-

style computer graphics that wouldn't be out-of-place on a Saturday morning kiddie show.

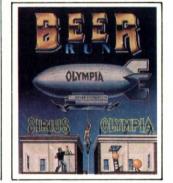
Games to Flip Over

David's Midnight Magic (Broderbund), Raster Blaster (BudgeCo) and Night Mission (SubLogic) prove that pinball and videogames aren't as incompatible with each other as some skeptics had thought.

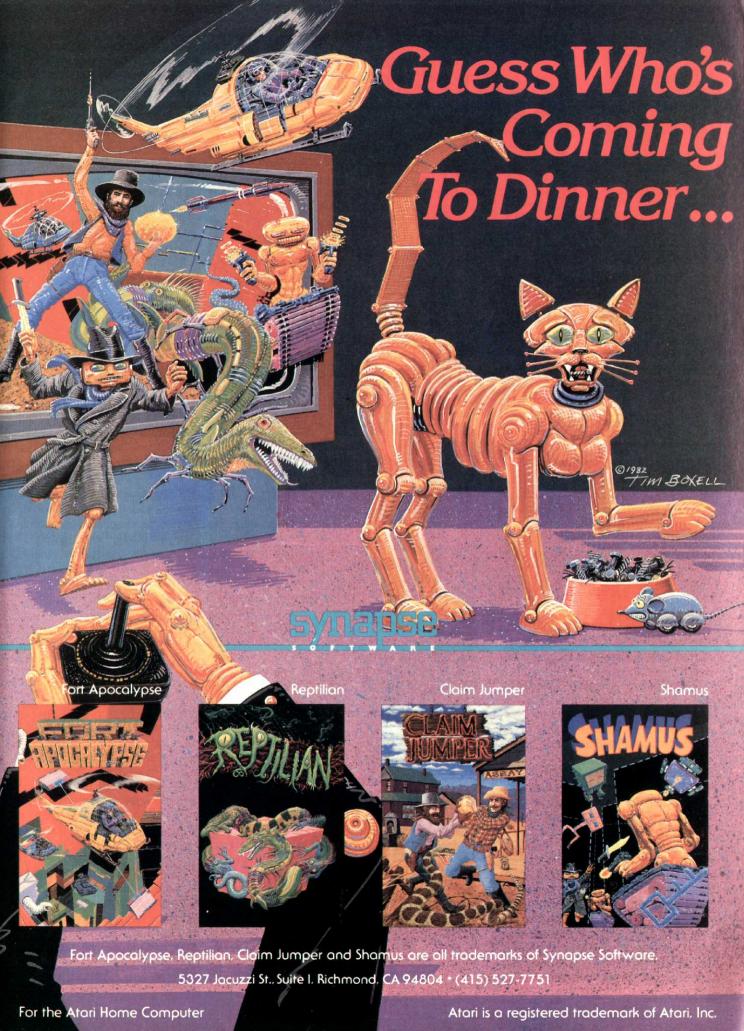
David's Midnight Magic, for instance, has a two level table with multi-ball capacity that any flipper fanatic would have to love. There's even a special feature that lets a player who has hit the right combination of playfield features save a ball before it disappears down one of the side drains. David Snider won an Arcade Award for the Best Computer Game of 1983.

Anyone who boots up this disk will quickly know how richly he deserved the honor for this video pinball extravaganza.

Even fancier is Night Mission. It presents a table with the theme of an after-dark World War II bombing run with the caliber of sounds and play features that is a dream come true for any video pinballer. Better yet, most of the parameters in the game, including ball speed, the amount of time a ball stays in a kick-out hole and so forth, are quickly and easily modifiable by the computerist. If you like your Night Mission with multiple ball shadows and slow-motion during multi-ball play, you can fix the game to your liking with just a couple of keystrokes. While Night Mission's table sometimes does display the tendency toward over-activity beyond the player's control, it is nonetheless a total treat for the gaming senses.









Speakeasy — a Flipper Rendezvous for Two

By ROGER C. SHARPE

some months ago, I have tried to be content with the hope that many of you will find the subject matter interesting enough to possibly give some of the new pinball machines a shot when you visit your local game room.

I know how flagrantly this thought flies in the face of convention, given the incredible success and diversity of current videogames, but the silver ball efforts are no less inspired.

In fact, one of my greatest concerns, when EG editor, Arnie Katz offered the opportunity to do this column was whether the number of models being released could sustain the needs of a monthly magazine.

So far they have. And the coming months show no signs of this diminishing. The coin-op artform continues to undergo change, and truly radical departures from the pinball ''image'', as evidenced by this issue's picks.

Pinball is fighting to get back into the playing public's favor. If nothing else, flipper machines can provide a challenging departure from video, or a new learning experience for those who have never enjoyed the satisfaction of a nicely placed reverse, a firmly hit spinner or the completion of a sequence of targets. The same even holds true if pinball was once a part of your game-playing repertoire, now abandoned for the joys of today's



SPEAKEASY (MAIN BOARD)

screen gems. Whatever category you fall into, there's a revolution going on that's waiting to be discovered by the adventuresome arcader looking for new battles to conquer in that universal, never-ending quest of man against machine. All you need to do is keep your eye on the ball and roll with the flow.

SPEAKEASY

Bally

At a time when the thinking is directed more at ways to dramatically alter or even disguise pinball, here's a model which shuns the approach. Instead, **Speakeasy** serves up the basics in a solid package while also throwing in some subtle nuances to bring it all up-to-date.

In many ways, Speakeasy resurrects the past by being a two-player game, rather than incorporating four-player capability. It also brings back to life a long-time favorite pinball theme — cards. In addition, the machine is an add-a-ball game in which much of the strategy and play-action is directed to winning multiple balls rather than just free plays, putting more emphasis on attaining higher scores as a result.

As for the features on the board, there's a rhyme and reason for everything, and it's all tied together from top to bottom and side to side. The play begins with five lanes at the top (5 through 9), all in the same suit (hearts). The challenge for players is to get the "cards" out sequentially, in order to win two added balls. If you screw up and get a lane at the "wrong" time, there's even the option of pressing an extra flipper button at the left side of the cabinet to cancel any out-of-sequence light, at a cost of only 25,000 points (a sometimes expensive ante, but a bit of imaginative strategy to utilize in a pinch).

Moving down on the board, there are three thumper-bumpers, widely spaced across the middle. On the left is a spinner lane, with values increasing

proportionately to other targets hit. The right side has a return lane featuring a star roll-over and more increased values as well as a potential special.

The real focal point of Speakeasy is a center set-up of Bally's new "flyaway targets," which do just that when a ball comes in contact with them. There are five in all, from the 10 of spades to the ace of spades. Making them in sequence means an added ball, but whether you can get them this way or in the wrong order, the bonus multiplier values rise and there's also an increase in point totals from 25,000 points up to 125,000 points. It's an intriguing design twist, because the targets function much like drop targets



SPEAKEASY PINBALL VERSION

or spot targets, but allow front access or back for the ball. You'll be seeing them again in some form in the future.

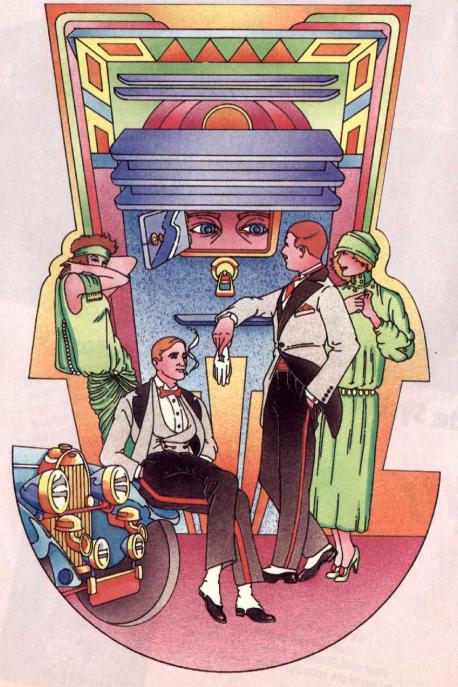
But there's still more to Speakeasy. Two side kick-out holes, when lit, activate a center "wheel of fortune" beneath the field for extra point values, an added ball or even the loss of a ball. Mix in a right-side roll-down with four jokers needing to be lit for an added ball, and you get the idea of this novel game from Bally which offers a full deck of flipper fun and scoring totals to match those players on a streak.

PUNK Gottlieb

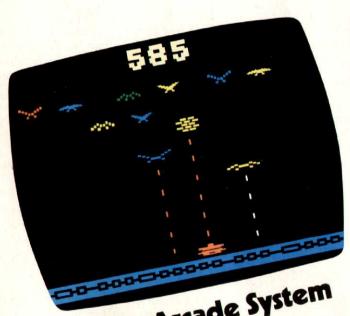
This company has remained faithful to the art with this modern-day pinball game which even throwns in some dynamite sound effects as part of the background during play.

Punk is a shooter's game, pure and simple. Its layout offers a vast array of shots and complementary rewards. There's a full board with three lanes leading off the top, along with a couple of thumper-bumpers to aid the play. At the right is a kick-out hole for locking up a ball, and there's another deep-set hole at the top left with the same function in this multi-ball design. The scoring can really build when more than one ball is rocketing around the board.

Four sets of three-bank drop targets



WE PUT IT ALL TO GE



It's an Arcade System



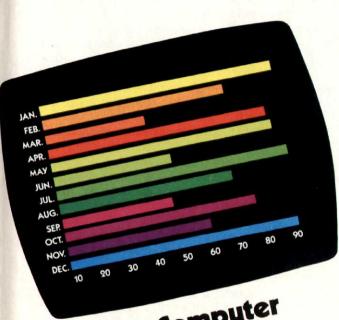
It's a Color TV

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We've got two big hits of our own that will put you on the edge of your seat, "Condor Attack" and "Karate" Many more are scheduled for release in '83.



THER JUST FOR YOU!





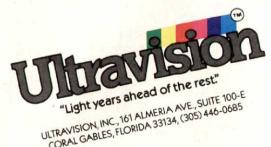
It's an Arcade System. The only thing the arcade games have that Ultravision doesn't have is a coin slot. This revolutionary new system doesn't just claim to duplicate the arcade experience ... it surpasses it! And auplicate the arcade expensive miles in passes it And it's portable, A/C or D/C. Another plus is the 3 dimensional graphics, zoom, and other special visual effects. The unique built-in sound system simulates echo and reverberation for authentic reproduction of explosions, cheering crowds, music, etc. And, if you want, you can hear it all without disturbing others.

It's a Color TV. Better than most, with 2 independent systems to guarantee the sharpest resolution for the Computer/Game systems and TV viewing.

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The games you can play. If you think coin-op arcade games are exciting, wait until you see the enthusiasm games are exclure, wall until you see the entitusiasm we develop with our dynamic visual effects. And if that's we develop with our dynamic visual effects. And it that's not enough, you can also play all Atari and Colecovision compatible games through our external module. We've got two big hits of our own that will put you on the edge of your seat, "Condor Attack" and "Karate," Many more are scheduled for release in 83.



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PUNK PINBALL VERSION

(two yellow and two black) round out the main scoring areas of the game with increased values earned for completing them during the course of play. At either side, midfield, there's a short lane leading down to a flipper for some good shot-making possibilities. It also releases the captive balls when lit. The center, meanwhile, houses two recessed targets which, when lit, can also release balls for multi-play.

The bottom brings in two more thumper-bumpers and a final set of flippers. A nice touch is a recent Gottlieb invention — kicking targets — at the sides for speedy play that also serves to aid a missed flip along the way.

What makes *Punk* a solid flipper game is that everything is integrated into the total flow of the action. There are good reverses and satisfying, long shots from right to left and left to right as well as smooth midfield play due to the positioning of features and the extra set of flippers. The scoring has been equally well thought out to constantly keep all areas of the board "alive" no matter what has been achieved if a player gets on a roll.

Even if you don't have spiked hair and have never slam danced, this newest of the new from Gottlieb should keep you coming back for more.

Before closing the Palace for this issue, a comment on next month's installment. Magazine lead times being what they are, it's very difficult to be totally up-to-date, but as soon as events happen they'll be brought to you with the greatest possible speed. Such is the case at this point in time as the coin-op industry gears up for its annual extravaganza trade show in Chicago, which is only a couple of weeks away. So coming up, a preview and review of pinball happenings and trends still to be unveiled in what should prove to be a very enlightening exhibition.

VARKON

Williams

If you think you've seen all that pinball has to offer, the latest variation on a theme by Williams will surprise you. First off, don't expect to see that familiar cabinet shape you've come to associate with flipper games because **Varkon** borrows from its coin-op cousins and might well be overlooked next to a **Robotron** or **Defender**. You see, this pinball is playing video's game even to the point of its double joystick control on the front panel of its upright cabinet.

Beyond the shock of this initial sight is the fact that the action taking place before the player is a mirrored reflection of a smaller-scale, "flat" field, which appears to be vertical when normally viewed. It gives the illusion that the ball is actually traveling up and down against and with gravity. You have to see it to really appreciate the effect.

The play begins either when a timer counts down to release a ball that rests between the flippers, or when the arcader presses a lane-change button. If nothing else, Williams has maximized the available space with five top targets (1 through 5) and a right side of two lanes (V-A) that lead down to a lone thumper-bumper and another lane (R). At the left, there are three more spot targets (K-O-N) and a top spinner that sends the ball down and around. When this area is lit, rather than having the ball

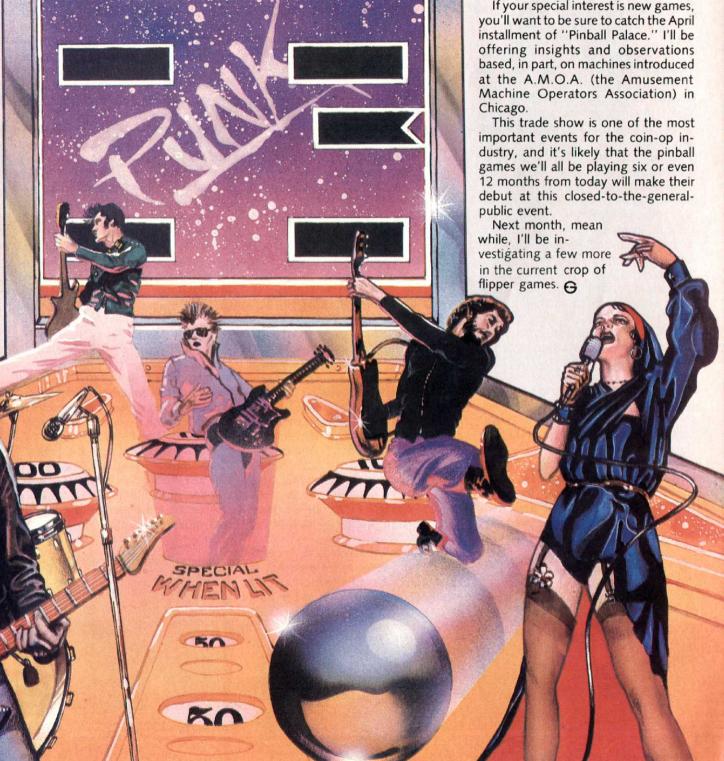


burst of light and sound effects and a chance for increased point values in a mini-playfield that might conjure up memories of Bally's Elektra, with its lower field play.

The balance, despite the obvious constraints, is pretty good with reverses as well as straight-away shots possible to all points of the board. The left side targets increase bonus multiplier values, while the right side lanes build the thumper-bumper scoring in an effort that can easily be missed amid the throngs of videogames around the arcades these days.

Whether or not the deception will be enough to intrigue videogame players remains to be seen, but Varkon is an interesting departure from the norm and once again proves that pinball can take on many different forms while still providing the essential ingredients that keeps pinball a unique commodity in the game playing universe. So give it your best shot when you see it at your local arcade and decide if Williams has, in fact, hit on something that's worth pursuing down the road.

If your special interest is new games,



JUNGLE KING

Taito

Originally, there was the home videogame, Freeway, in which players directed chickens over a variety of real-life highways. It was followed soon thereafter by Frogger — the first time a home videogame beat a coinop to a popular new play-mechanic idea.

Just as Freeway foretold Frogger, Activision's Pitfall has helped add the "swinging" game to the pantheon of gobble, maze chases, climbing contests, invader games, and digging videogames, by providing gamers with an arcade swing-fest.

Jungle King from Taito looks to be that storied company's biggest hit since Space Invaders. This three-scenario contest fits the classic formula for successful videogames: easy to learn, difficult to master. The game begins with a Tarzan-type jungle lord swinging back and forth on a vine. Soon, a second, empty vine will arc into view from the left end of the playfield, much like a circus trapeze. By hitting a jump button and joystick, the hero will leap from his vine onto the next. If he makes the leap, he moves on to the next rope, and so on throughout this scenario.

Completion of this round brings the player to the river sequence, in which the jump button becomes a "stab" controller. As the jungle king swims up the river in search of his lady — who has, of course, been spirited off by local cannibals — we quickly learn that sharks infest these waters. By timing the push of the button to activate a lethal blow to the savage predator,



JUNGLE KING



By BILL KUNKEL

Meet the King of Coin-Op Swing

points are scored and territory is cleared.

The final scenario involves the actual rescue — from a boiling cauldron, no less — of jungle queen by jungle king.

Jungle King is an undeniable kick the first few plays, but doesn't seem to hold up for extended periods of time. Moreover, the graphics are, especially at the start, downright hideous, looking as if they were drawn and crayon-colored by a kindergarten class. Subsequent sequences are somewhat more eye-pleasing, but this one is never going to challenge Zaxxon — or even Pitfall for that matter — in terms of visual frills.

The play's the thing here, though, and gamers seem to be enjoying it. Several potential problems have emerged, however. One is the long playing time for each game. There doesn't seem to be any great time-pressure to jump, so poor players tend to stand in front of the machines for loooooong periods of time.

More seriously, the estate of Edgar Rice Burroughs, creator of the original Jungle King — Lord Greystoke, aka Tarzan of the Apes — have brought suit against Taito to cease producing the games.

Stay tuned, Junior G-Men for the latest breaking news. . .

KANGAROO

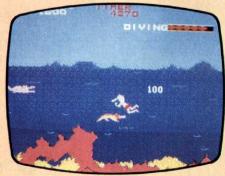
Atari

Ever since that cute little round-headed guy with the insatiable appetite turned arcade coin slots into horns of plenty, the buzz-word in arcade circles has been "cute". For the first time since the great videogame explosion began, science fiction blast-'em-ups are being edged off the arcade floor space by such graphic charmers as Donkey Kong, Dig-Dug, Frogger and, of course, Ms. Pac-Man.

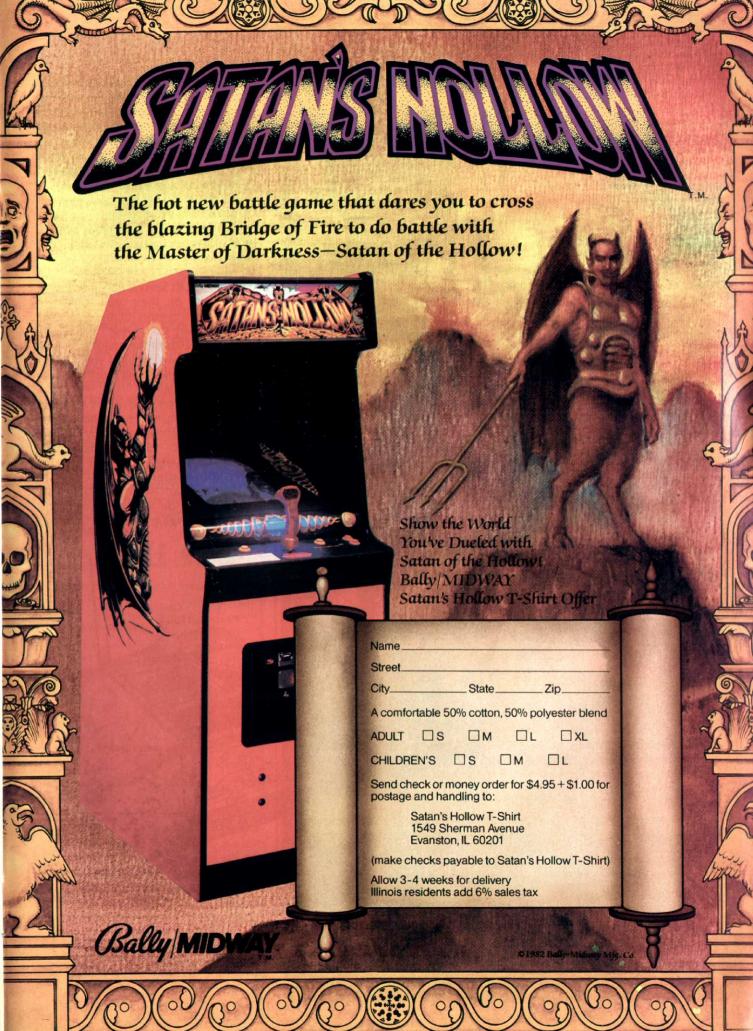
Not that the SF games aren't still hot as a pistol — witness Tron, Zaxxon and Frenzy — but even the games in this traditionally macho genre have begun to "cuten". The newest title from Williams, best known previously for such "players' games" as Defender and Stargate, is Moon Patrol, a visual knockout of a machine that blends ray gun excitement with the whimsey of "The Love Bug" in outer space.

Of all the cutey-pie coin-ops raking in the quarters, Atari's **Kangaroo** takes the top honors. The game revolves around an adorable little marsupial who has been snatched from his kangaroo mama's pouch by a band of chimp terrorists — obviously guerrillas in training. They blindfold the poor little dude and take him to the top of a steep, multi-leveled playfield, where he must wait for his player-controlled mom to rescue him.

Arcaders are armed with a joystick that moves, or jumps, the kangaroo



JUNGLE KING



in any desired direction. Our heroine can also leap straight up, or duck down low. This all becomes necessary because, in addition to scaling the various corridors to reach its offspring, the kangaroo must put up with a barrage of apple cores hurled by the devilish chimps who skitter up and down the tree-lined right vertical end of the playfield.

Your marsupial surrogate is no sitting duck, however! She's equipped with boxing gloves that are activated by the push of a button on the command console. Of course, to throw a punch requires getting within range of the cantankerous primates, but a shot to the chimp-chops is good for healthy

bonus points.

Reaching the top of the playfield and the baby—wins the player a grateful "Mom!" (coming from the baby 'roo via a word balloon) and a shot at the next playfield, a stair-step affair in which the kangaroo must leap northeasterly onto suspended platforms. Again, you're shooting for the top of the playfield and the baby animal while dealing with the antagonistic apelings. The final sequence is a more traditional ladder/climbing sort



KANGAROO COIN-OP

of scenario which is elevated by means of its superior graphics to first rate play.

There are scores of cute little touches all along the way. Bonus items dangle from the ceilings and can be snatched for extra points, enchanting music plays throughout and when our heroine is either conked with an apple core or tumbles from a shelf, a golden halo appears over her head.

It's not the most imaginative game to come down the pike since Pac-Man, certainly, but it's cute as a button, loads of fun to play, and surprisingly addictive.

TOKEN TALK: Several very interesting games are on their way to family amusement centers across America. While "Insert Coin Here" will eventually deal with all the major games at great length, we thought you'd like a preview of a few of the most fascinating new entries.

Solar Fox from Midway is a sort of outer space maze game without lines. Your ship captures objects by passing over them. It's exciting, challenging and, as the saying goes, "easy to learn, difficult to master'

Gravitar, an Atari coin-op, is an absolute tour-de-force, and one of the most challenging "players' games"



HOW IT PLAYS

After selecting between the one- and two-player option switches, the gamers must deal with a multi-purpose joystick and a "punch" button. The button is chimpanzees that scamper vertically along the playfield border. The stick in its down position will cause the kangaroo to duck. Pushing the stick away will send the marsupial straight up in the air, ly will produce leaps in those directions.

Otherwise, the stick is used simply for directing the kangaroo in the ordinary compass directions and in scaling ladders.

ever designed. Players move across an overview of several space caverns which become magnified — as in **Venture** — once the cave is breached. This is a thrust-steering game, a la **Asteroids** and only top guns need apply.

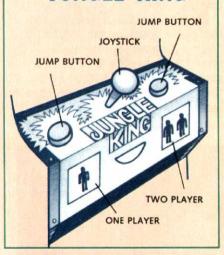
Finally, be on the lookout for what may be the most revolutionary new videogame since **Pong!** It's from Sega and the name is **Subroc-3D** — a fully three-dimensional game that requires no glasses and will be available both in

JUNGLE KING HOW IT PLAYS

After selecting the one- or twoplayer button, players simply hit the action button and the directional joystick on the console to activate the various functions swinging, stabbing, etc. When the jungle king swings from one vine to the next, he can land at any of three levels. It's best to land him at the highest level, thereby reducing the risk of his falling just short on a subsequent jump.

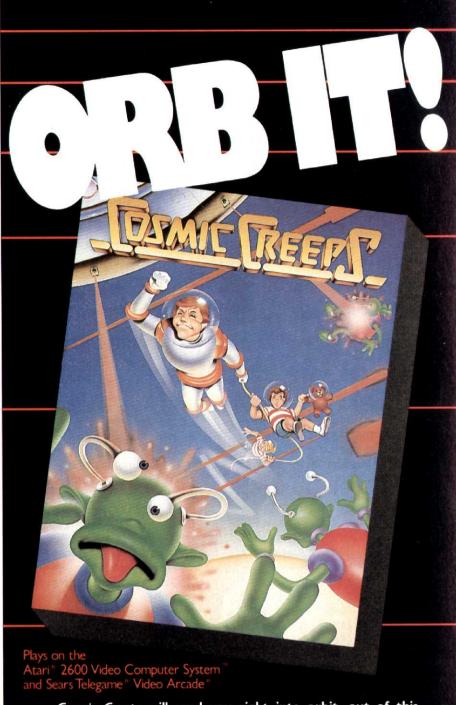
When underwater, keep an eye on the diving bar, indicating the amount of time your jungle hero has underwater.

JUNGLE KING



upright and sit-down formats. A combination dogfight-sea battle, we can guarantee you that your eyes will pop and the quarters will drop.

Watch for complete coverage of these games, Moon Patrol (Williams) and lots more in upcoming installments of "Insert Coin Here" and our annual "Player's Guide to the New Coin-Ops" in the April issue of Electronic Games.



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A Designer for All Seasons

an Bunten is a good example of the seriousness that is now associated with computer game programming. In the past, many top programmers worked in the business and education ends of the software business, and it was only the parttimers who dabbled in games.

Bunten has created three games for Strategic Simulations Inc.: Cartels & Cutthroats, Computer Quarterback,

and Cytron Masters.

"When I did Cartels and Computer Quarterback, I was working part-time. When those games did well I decided to devote my full attention to the job, so I hope things continue in that direction," said Bunten from his home in Little Rock, Arkansas.

If his last three outings are indicative of what lies ahead, things should continue to go quite well. "Cartels & Cutthroats is a business game that is a full-scale simulation of the market-place for up to six companies. It is complex in its inner workings, yet simple to play because the gamer has only seven data inputs to work out," says Bunten.

"With Computer Quarterback, I wanted to make a strategy game that could be played head-to-head or against the computer. Now, I know more about graphics, and what I did in the past in BASIC, I would now do in machine language to make response time much quicker," testifies Bunten.

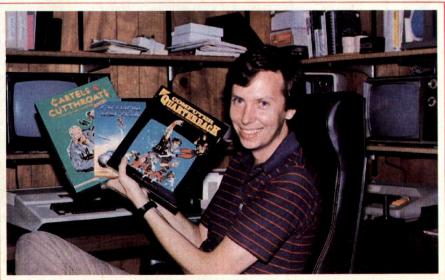
So with a business game, a sports

game and a robot clash (Cytron Masters) under his belt, what does such a versatile programmer do? "I'm going to do another business game next. I don't know anything more about it than that yet," says Bunten. "I have some other ideas on future projects, but overall I think my diversity has hurt me. Someone like Scott Adams has worked so long in adventures that he has become a household name in that genre. When he comes out with a new game, the adventure gamers say, 'Oh, another Scott Adams game!"

Another thing that really helps games is extensive documentation, which can give the gamer a feel that here's a product to which some time has been devoted. That feeling can easily be gotten from the opening of *Cytron Masters*. The first few pages of the booklet contain the background story as to how the Cytron battles originated. The reading is so good that it's almost a disappointment when the story ends and the game instructions begin.

Bunten thinks touches like that set the game apart in the marketplace. "Some companies lose sight of the finer touches. I think if someone is going to spend \$30-\$40 on a product, they deserve more than one page of instruction and a game disk. On Cy-

Dan Bunten shows off his three best-known games



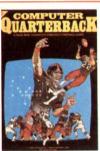
tron Masters, we decided to put an instruction mode into the program to make learning the game easier. Those touches are appreciated by the gamers."

The credit for the fictional opening to the *Cytron Masters* instruction booklet must go elsewhere. "My brother wrote the opening," Bunten notes. "I am a science fiction buff from way back. I was probably first influenced by Larry Niven. But my brother wrote that opening piece."

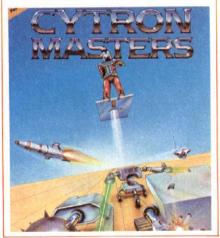
Even the packaging aspect of software publishing interests Bunten. "I don't think Cartels & Cutthroats is a



CARTELS &



COMPUTER

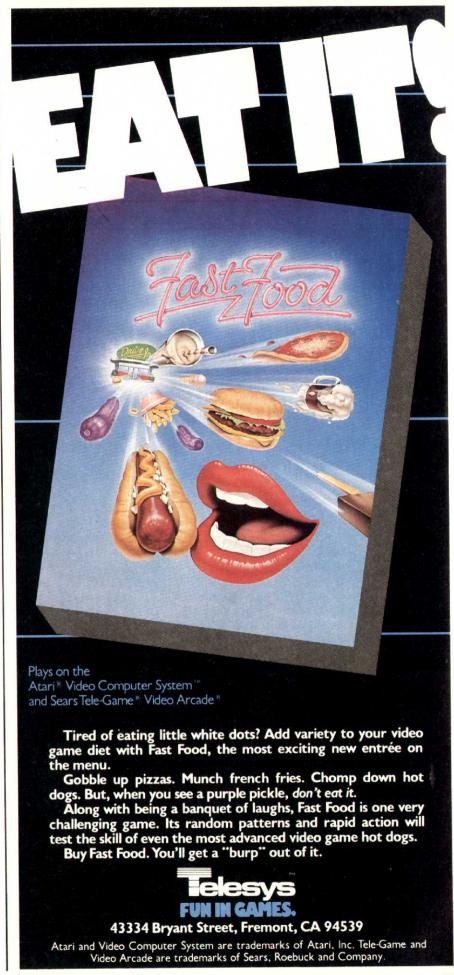


CYTRON MASTERS

good name for that program because it doesn't tell enough of what it's about. I think the name has hurt sales. With all the games currently being turned out, it is important to be successful with each phase of marketing," he explains.

But to the players, it's the program that counts, not the package. Bunten's three works, Cartels & Cutthroats, Computer Quarterback and Cytron Masters, all stand tall in the gaming world in this regard.

Whether he's soaring through outer space, engineering a super-simulation of a major team sport or simply delighting moguls — and, of course, those would-be moguls — Dan Bunten has the right stuff.





The Menace of the MCP Returns

nd as Flynn distracts the MCP, Tron flings his special disk into the heart of the evil program and destrovs it forever!

Or did he??!!??

When news broke regarding the MCP's downfall, all the enslaved programs rushed to their I/O towers to talk with their Users once again. But, there were many programs written by the MCP himself who were loyal to him to the very end. These programs had a "back-up" copy of the MCP in the event of the MCP's destruction. (Back-up is a term that means a spare). The MCP helpers sent a copy of the MCP to another computer system to keep Tron from derezzing the only existing copy.

Once Tron found out about this illegal use of an I/O tower he attempted to shut it down, but was too late.

Light-cycles whiz across the game grid

The MCP had escaped. Tron jumped into the I/O tower to track down his nemesis, and took five weeks of searching until he found the MCP being bored to death inside an IBM 360 computer with nothing but accounting programs to terrorize. The battle begins. . .

The MCP has been busy for the past five weeks. It has constructed another light cycle game grid, a large maze patrolled by tanks, and another protective wall (slightly weaker) around himself. The I/O tower has been surrounded by the dreaded "grid bugs."

Tron must first prepare himself to do battle with the grid bugs so he can enter the I/O tower, make contact and get instructions from his User on how to reprogram the MCP into a babbling idiot. Upon entering the courtyard of the tower, the bugs awaken and are found multiplying. Tron moves to the



One of Sark's tanks patrols the maze

right as fast as he can, derezzing each and every one of those little critters that stand in his way. Reaching the right corner, he moves straight up, throwing disks as he goes until he is near the entrance of the tower. Tron continues firing at the grid bugs to reduce the population explosion until the timer on the tower gets below 100



Midway's smash coin-op hit, Tron

nanoseconds. He makes a flying leap into the tower and is taken to the real world for a brief time.

Alan, Tron's User, tells Tron that the only way to eliminate the MCP is to repeat what he did in the ENCOM computer system by throwing a special disk into the heart of the MCP. Entering the MCP's cone is the only way of guaranteeing success.

With this new knowledge, Tron rezzes up his trusty light cycle and jour-

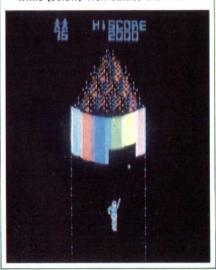


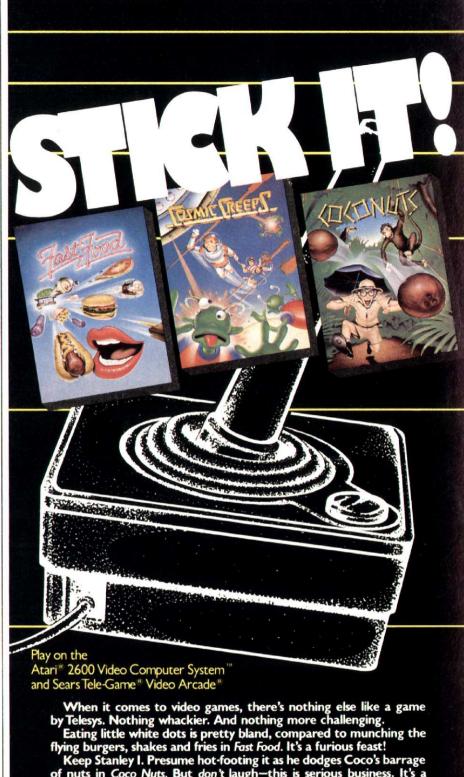
The MCP's "Recognizer" under attack

nevs to the MCP's cone. But wait a minute-here comes those three evil blue warriors. Three evil blue warriors that Ram, Flynn and Tron derezzed long ago. It looks like they want a rematch but three against one? That's not cricket ol' chum! Let's see if my "pattern" still works. I go straight ahead halfway up the grid and make a turn to the right until I get near the right wall. I move downwards, leaving a small channel for a cycle to go in but not out. I go to the bottom wall and turn toward the left wall and, sure enough, one of those blue jokers goes into a one-way street. One down, two to go. The second cycle is coming straight at me. I get close and move



(Above) The Grid-bug scenario dares the player to reach the I/O Tower while (below) Tron battles the MCP





of nuts in Coco Nuts. But don't laugh-this is serious business. It's a

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Sark provides the main menace in Disney's "Tron"

straight up the left side and then back down again, entrapping the little bugger.

Two down, one to go. I now follow the upper wall and cut off the last cycle near the top of the game grid and proceed at a slow pace. The blue cycle runs out of room before me and zaps himself. Three down and now I've got to go.

Tron stops, derezzes his cycle and looks at the maze before him. Looks deserted. Better yet, that tank looks even more deserted. Tron climbs into a badly damaged unmanned tank and starts it up. The tank has a moveable turret but there is no shielding of any kind so one hit and it's bye-bye for Tron. Tron enters the maze. . .

The maze contains five extra-

shielded tanks. Tron moves again in another "pattern", making sure to avoid any head on confrontation. Using the only advantage, a steerable turret, and bouncing all his shots against the walls, Tron makes mincemeat out of the tanks before proceeding to the deadly cone.

The MCP knows Tron is coming so he builds a massive wall around himself and begins spinning it at a dizzying rate. Tron enters the MCP's I/O tower and begins hurling his disk again and again at the moving wall. The MCP has a new trick up his sleeve and shuts the entrance to the room so Tron can't escape and begins to move both himself and his deadly wall toward Tron. Tron, seeing the mess he is in, throws his disk to the side of the cone where the wall is at the left end. With only seconds to spare, Tron makes a vertical hole in the wall and before the hole has a chance to disappear around the other side, he makes a mad dash throwing disks as he goes into the cone and wipes out the MCP.

The darkness is lifted once again but what has happened in the five weeks that the MCP was free??? I wouldn't trust your computer if I were you. . . 6

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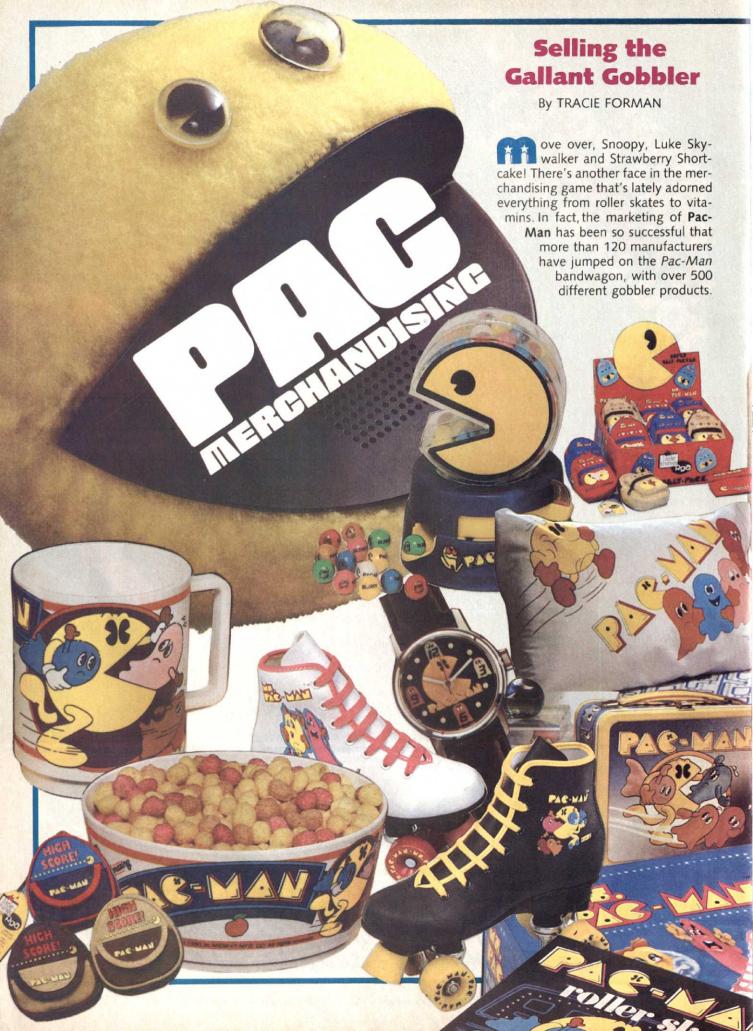
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Pac-Man fever hit the merchandising industry with such a bang that last September, Bally/Midway played host to its Pac-Man licensees with a seminar in Chicago concerning the future of gobbler products. The mood was upbeat, as it well should have been. . . In the last year, America's favorite face generated product sales of over \$10 million. While that may seem like a drop in the bucket compared with the earnings from the Pac-Man and Ms. Pac-Man videogames (\$150 million and \$200 million, respectively), there were a lot of happy faces at the Chicago seminar.

Dedicated Pac-Maniacs can now wake up between Pac-Man sheets,

wash up with Pac-Man soaps and toothbrushes, eat their breakfasts off of Pac-Man dishware, and dress in everything from Pac-Man underwear to Pac-Man sun visors. There are Pac-Man key chains, coin purses, ties, and chalkboards, not to mention the old merchandising standbys like T-shirts, lunch boxes, wristwatches, and the like.

But who ever heard of a "Star Wars" popsicle? Epitomizing the unique appeal of Pac-Man to mer-

chandisers, the

Pac-Man ice-

pop was in-

by Popsicle Products last year. It features the gobbler's likeness as a lemon ice, or if you prefer, you can munch a cherry-flavored sculpture of Blinky the monster instead. And popsicles are just the tip of the iceberg when it comes to unusual products bearing the gobbler's name.

For example, you can buy IMG Inc.'s gold-and-diamond Pac-Man neck-lace, which features a 14k gobbler munching on a string of a hundred and three .10 point diamonds. With its \$20,000 price tag, it's the most expen-

sive Pac-Man product you can buy, and a sure-fire way to impress your girl friend. If that's too rich for your blood,



you could settle for any of a number of Pac-Man earrings, rings, charms, belts,

or bracelets, available in every price range and easy to find.

If jewelry isn't your style, there's always the new Pac-Phones. . . They're available in phone stores across the country and feature a good likeness to "youknow-who". Flip him open and he becomes a regular telephone.

But by far the most unusual of the Pac-Man products is Calfax's Pac-Man chatter-animal. It's a plush toy, but with a difference: talk to it and it replies with the familiar wakka-wakka sound, punctuated by flashing lights in its eyes. The longer you talk to it, the longer it talks back to you.

Also soon to tour the country: An ice-follies type show without the ice, featuring a bigger-than-life Pac-Man, Ms. Pac-Man, and all of Bally/Midway's best-loved videogame characters, singing and dancing their hearts

out for the kiddies!

But why this proliferation of Pac-Man products in the marketplace? Until the Pac-Man phenomenon, no videogame was ever so firmly entrenched in our culture.

vent of the gobbler, who ever heard of a videogame product (except the occasional T-shirt)? Why has Pac-Man suddenly ventured out of the arcade and into the home?

The man responsible for the Pac-Man marketing bonanza is Stan Jarocki, vice-president of marketing at Bally/Midway. Standard practice (before Pac-Man) would have been to turn the name and likeness over to a national licensing agency and then forget about it, but Jarocki saw the enormous marketing potential in Pac-Man and broke tradition by keeping it 'all in the family'

Pac-Man is truly a phenomenon, as a game and as a character. Jarocki notes that "Pac-Man products require

we've got the silent salesman (the game itself) on the street. If each videogame earns \$50 a week, that's six hundred quarters. . .six hundred people, multiplied by the number of machines across the country. Even making allowances for multiple plays by the same people, millions of people are exposed to Pac-Man every week." He also mentioned that because the gobbler is an established and familiar 'product", it's a natural for merchandisers eager to give the public what they want.

What's in the future for Pac-Man products? Are they here to stay, at least for a while, or are they doomed to an early obsolescence? Although it's the consumers who'll be the ultimate judges, Jarocki says that Bally/Midway will continue to stress Pac-Man in their licensing division, and because the new Super Pac-Man and Baby Pac-Man machines will keep the gobbler characters in the public eye, licensees can still expect plenty of income in spite of the built-in instabilities of the merchandising game.

In fact, the success of Pac-Man products has spawned a whole new strategy in the development of the games themselves. According to Jarocki, Bally has a number of games in the works which are being developed as the gobbler himself.





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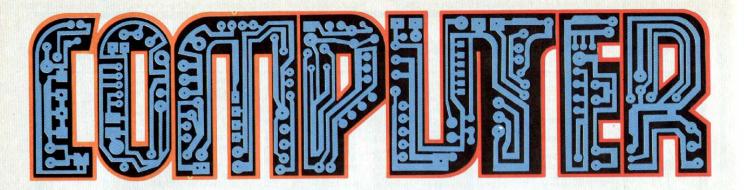


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ZENITH

Gebelli Software/Apple II/48K disk

Earth has decided to build an artificial sky city to cure its problems of dwindling resources and overpopulation, and your space cruiser is charged with patroling this outer space metropolis, Zenith, while it's under construction.

Why does Zenith need guards? Well, there's a race of aliens a few parsecs to the left that isn't too thrilled by the idea of humanity erupting into

the void and constructing a permanent base.

Finally, the attack against Zenith comes! You must zoom back and forth above the surface of this man-made world, hunting down the aliens and their deadly spacecrafts while also repairing any dam age done to the

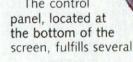
city's buildings by enemy bombs. Your fuel is sharply limited, but if you use

your tractor beam to snare a few aliens, you can journey into hyperspace and trade your prisoners for fuel with the alien mothership.

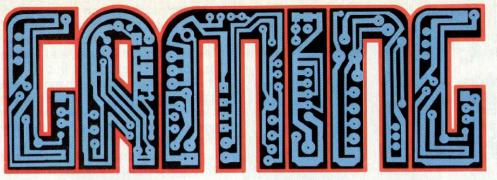
This first-person piloting and combat game features several different screens. Besides the well-executed hyperspace and refuel sequence, there is a view of Zenith as it would look through the front port of your ship, and a map display which shows the locations of aliens, ships and buildings within the city.

Zenith is playable using either the Apple keyboard or the system's standard two-button joystick. In the latter case, one button fires the laser, while the other repairs damaged buildings and activates the tractor beam. Pushing both simultaneously causes your

cruiser to enter the hyperspace mode if you have enough prisoners to trade for fuel. The control







Only Your Ship Can Withstand the Invasion from Outer Space!

important functions. Three flashing lights show when fuel is low or if there's damage to the laser or shields, a gauge graphically shows the amount of fuel remaining, your current score is indicated and there's also a pictorial representation of the

indicated and there's also a pictor representation of the number of aliens



ZENITH

in your holding bay.

Keeping track of captured aliens is crucial. You need three to refuel, four to repair the ship and refuel at the same time. Unfortunately, these aliens don't take well to being penned up in the slammer. After a short period of time, an alien will begin to sicken, turning an unhealthy-looking shade of blue. If not traded in time, the alien dies and disappears from the display.

Zenith is the best computer game Nasir Gebelli has designed since he went out on his own after compiling an enviable record of success as one of the leading lights at Sirius Software. His first few efforts under his own banner didn't seem quite up to the standards of Gorgon, but Zenith offers hope that this superstar of computer gaming is getting back into his stride.

(Arnie Katz)

MARATHON

EduWare/Atari 400&800/48K disk

Nothing turns off the typical home arcader more than even a whisper of the word "educational". All electronic games are learning experiences, at least to some extent, but the ones

which overtly attempt to drum some particular subject into the player's noggin are often looked upon with considerable disdain.

It isn't hard to explain. Electronic gaming is supposed to be entertainment, and few people are that entertained by extra doses of schoolwork.

On the other hand, a program like **Marathon**, simple to play with good visuals to hold attention, can transform tedious drills into something a bit more pleasurable.

This well-done game tests the abilities of one or two players to quickly solve simple addition, subtraction, multiplication and division questions. It is possible to have all questions involve one type of arithmetic operation, or a grab bag approach can be chosen to sharpen overall mathematical skill.

Runners advance along this race's course by successfully picking the right answer to each problem from a series of possibilities by using the joystick. Every fifth question challenges the player to furnish the multiple of a given number as quickly as possible.

KAMIKAZE

Hayden Software/Apple II/48K disk

Designer John Van Ryzin carries us back to the Pacific Theater of World War II for this action contest based on the theme of air-sea warfare against the Japanese.

You captain the vessel that's patroling the waterway seated along the bottom edge of the playfield, which moves back and forth as needed in response to either paddle or joystick input. Although the sky above is sparkling and clear at the start of the game, it doesn't remain empty for long. Soon, bombers are appearing overhead, one coming into view from each direction, dropping bombs as they pass over the ship. Not surprisingly, the goal is to shoot down the bombers for points. (Low-altitude bombers are worth 25 points at the

start of the action, increasing to 50 points after your tally passes 5,000. High altitude planes are worth 50 points to start, and 75 after breaking the aforementioned barrier.)

In some ways, this resembles "Polaris vs. Bomber" on Atari's Air-Sea Battle VCS cartridge, only in stereo. The gamer starts with five ships, available one at a time, and earns a replacement boat for each 1,000 points scored.

Dangers multiply as the game progresses. After you've shot down a few bombers, the first of the floating mines makes its debut. They appear at the right edge of the playfield and slowly drift to the left. Not only are they capable of blowing up one of your ships, but the threat of the mines tends to force the player to station his ship closer and ever closer to the left edge of the waterway, making it that much easier for the low altitude bomber to destroy the vessel with a quick bomb, shortly after it pops into view.

If you're a cunning enough commander to survive the floating mines, you'll have to keep an eagle eye out for the kamikaze planes. Rather than just cruising the screen, these bombers are bent on eliminating your ship even if they die in the attempt. Once this phase of the game is entered, the player will need nerves of steel to hold the boat in a good position without flinching in the face of the diving Japanese planes.

Kamikaze is a tough game, likely to be of good interest to those who consider themselves action game aces. On the other hand, it seems almost too simple, in both play-action and graphics, for a disk rated at 48K memory. It doesn't look all that much more complex than the typical 4K videogame cartridge, though a score of extra frills certainly eats up quite a few bytes. Van Ryzin appears to be a good game designer, but he must increase the sophistication of his future



SERPENTINE

Broderbund/Apple II/48K disk

Think you've had enough maze games and that nothing in this world could make you shell it out for one more? Read on friend.

In this maze-chase, there are two different types of snakes; the good ones (your's naturally) and the bad ones (belonging to the evil computer). You are blue and are quite fast (for snakes). Their snakes are yellow, and somewhat slower and longer (at least in the beginning).

The object of the game for either side is to rid the maze of snakes. If the computer wins, the game is over. Should you win, there is a second maze and three more dangerous reptiles

As long as the computer's snakes are longer than your's, an attack on your part must come from either the sides or the back. Should you run head-on into one of the longer snakes, in this case, the computer's would triumph. Each side's snakes become longer when they eat parts or wholes of other snakes, other snake's eggs, or the frog that jumps around the maze.

When your snake becomes longer than the computer's, the yellow color turns to green and you can attack them from any direction. At random times the snakes lay eggs, which cut the snakes' length by one segment. If a snake is already only two segments in length when the egg is laid, the snake will die. This keeps you from merely crawling around the maze without

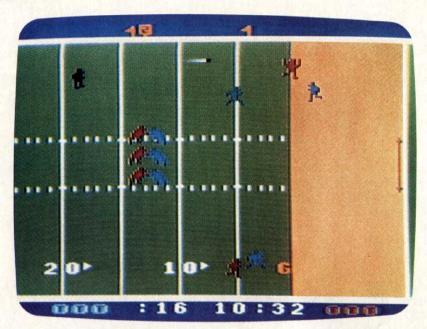
eating anything.

Out of these eggs come more snakes. It takes only a short time for the computer's eggs to hatch, but you must protect your egg until the maze is cleared of enemy snakes before the egg hatches. Frogs also like to eat eggs, and in that quality lies the game's only flaw. When the blue snakes wipe out the yellow/green collection, the blue snake takes a meandering path back to the corner he came from before the game goes on to the next level. While on that trip back, the gamer has no control over the snake and during that trip the egg in the maze has no defense from the roaming frog.

At the beginning of the game there are three blue snakes. An extra snake is earned for reaching 20,000 points, a lofty goal indeed. The game can be played by joystick or keyboard, and under keyboard control the keys are defined by the user. Eating a frog scores 500 points, an egg scores 150 points times the level of competition, a serpent is worth 100 points per segment until level three when the values increase at every other level, and a ser-



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pent's head is worth 200 points with increments similar to those for the rest of his body.

David Snider has certainly proven with this outing that everything hasn't yet been done with mazes that can be done. Serpentine is a game that's as addictive and enjoyable as any maze ever created for the home computer, with graphics, outstanding enough to carry the title of Broderbund.

(Rick Teverbaugh)

BRITISH HERITAGE JIGSAW PUZZLE, Vol. 1

Thorn EMI/Atari 400-800/16K cassette

The British are coming! The British are coming! And they're packing a ton of absolutely fascinating computer game programs. Thorn EMI may still be an unfamiliar name to computerists on this side of the Atlantic, but the UK-based publisher has already established a fine reputation for producing outstanding games that are just a wee bit different than the usual target-shooting festival.

A good case in point is the company's British Heritage Jigsaw Puzzle,

Volume 1. As the sensibly written in struction booklet acknowledges. this tape will not completely substitute for your favorite 1000-piece puzzle, but it does provide an hour or two of pleasant recreation for those who never tire of putting the pieces together.

The two main variables in this program are the number of pieces which must be assembled to reveal the Tower of London and the Tower Bridge. The smallest size is five by five pieces, while the largest is an eight by eight arrangement. The player also has the chance to decide how the game should handle the positioning of an incorrect piece. The program only inserts correct pieces in the easier version, but will wedge a wrong one into place if you're competing at the tougher level.

After booting the cassette, the completed picture appears on the screen. Study it carefully, because once you push the "option" key, that's the last you'll see of it until you finish the puzzle. At that point, the finished piece is displayed.

The player pushes "T" to start with the top portion of the puzzle or "B" to begin at the bottom. Three pieces then



BRITISH HERITAGE JIGSAW PUZZLE

move onto the screen on an invisible belt, with a flashing black and white dot to indicate which one of the trio is ready for you to place. The puzzler then utilizes the joystick to move an on-screen cursor to the portion of the screen where the piece (hopefully) belongs. If you have made an incorrect choice, the computer will beep and either go on to the next piece or put the one you just made the mistake on into the desired position, depending on the difficulty level. In the latter event, you can remove the wrong piece later in the game by simply inserting the right one when it comes up



British Heritage Jigsaw Puzzle, Volume One is, quite obviously, not for everyone. But if you're looking for a pleasant change-of-pace and a few hours of classy entertainment, you can't go wrong with this one.

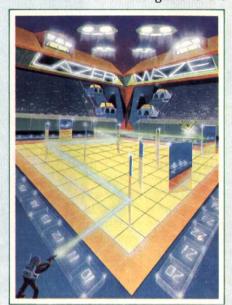
(Arnie Katz)

LAZER MAZE

Avant-Garde Creations/Apple II/48K disk

An exciting, riveting arcade game that requires no game paddles or joysticks, yet takes strict concentration and a sharp wit? Lazer Maze is all that and even a bit more.

The scenario for this game is the



LAZERMAZE

24th century, where outright war has given way to a tactical one-on-one type of combat, used in settling disputes. The Area Grid of Justice is the site for this unique battle. Armed with only a lazer and facing an arena of mirrors, the warrior must figure where his shot will exit the maze. His opponent is then placed at that spot. If the prediction's correct-instant annihilation! If he's wrong, the foe will throw a bomb over the maze and almost certainly kill the combatant.

Lazer Maze is the home practice recreation of this battle, used to sharpen the wits and reaction times of those futuristic fighters.

Once the game disc is booted, the player can choose between entering directly into battle or going through the instructions. The on-screen instruction is quite good and prepares the gamer well for what lies ahead. Once into the battle, the gamer must look as quickly as possible to find the location where his lazer shot will exit the maze. He then enters the digits of

Continued on page 82



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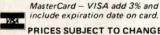
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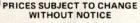
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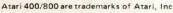
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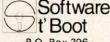
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COMPUTER GAMING

Continued from page 80

that location. His foe is placed on that spot and the lazer is fired. If he misses, the opponent throws a lethal bomb. If he hits it right, the computer awards points depending on how long it took the gamer to enter the proper location and how many mirrors the shot struck before exiting the maze.

At the opening or beginning level there are 20 mirrors in the maze. The only way to advance through intermediate, high, highest and master's levels are by amassing a significant score on the lower levels. After awhile the game becomes easy enough that missing a spot on the grid is extremely rare, but that doesn't mean the challenge is gone.

After almost every round there is the feeling that the exit locations can be found a bit quicker, giving an even more impressive point total.

One complaint about the game is that it can only be played by one player at a time. It would help the competitiveness of the program if one player could try and then a second follow, both at the same level. Both could then advance at their own pace in the quest for the ultimate high score.

Overall, Lazer Maze is a quick thinking game that is perfect to pull out when the joystick blister on the inside of your hand begs for a rest. Quite inventive in design and execution.

(Rick Teverbaugh)

TELEPORT

Cavalier Software/Apple II/48K disk

The attack in **Teleport** comes not from outer space or beneath the sea, but from an entirely different dimension. Fortunately, the invaders, who gate onto the playfield one at a time, are a little confused by their trip and thus may be rounded up by the player.

This would be child's play, except for the fact that you must operate within the limitations of a fairly severe power shortage. Your gun can stun an alien, but it can only disable one nasty at a time. While you've got it in this helpless state, you must lead it to the infinity door and shove it through this portal back into its own dimension. The link between the dimensions isn't entirely stable, however, so the infinite door has a way of moving around the screen periodically, meaning that you'll have to cross a playfield full of confused-but-dangerous aliens on the way to completing your mission without a weapon of any kind with which to repel an attack.

The playfield for Teleport is relatively sparse, with only a cross-shaped maze in the center of the display to restrict movement and heighten the impact of strategic planning of movement in this contest. Situated in the upper right and lower left corners of the screen are teleport booths. When the gamer's on-screen character enters such a doorway, with or without an alien in two, it reappears at a random point on the screen. This feature, from which the game derives its title, is not as exciting as it could be. It might've been better to have a character who enters one teleporter exit the other. Popping up "just anywhere" doesn't look like enough of an advantage to induce the player to make much use of this rapid means of transportation.

One of the most interesting capabilities of *Teleport* could not be tested by this reviewer, because it requires a Votrax speech synthesizer. Reportedly, those who have such a device to hook into their Apple will be rewarded by an array of sounds well beyond anything ever heard on a game produced for this sytem.

Something which anyone can enjoy is the graphics. There aren't a lot of objects or frivolous decorations on the playfield, but what's there is really beautifully drawn. The stunned aliens look a little like those lovely bejeweled Fanrege eggs, and the attackers make the transition to our dimension in a whirling, visually arresting fashion.

The only real criticism of *Teleport* is that Mike Abbott's game is just a little repetitive. (Of course, so is **Pac-Man.**) It is true, however, that the constant random movement of the infinity door keeps any two consecutive play-sequences (find alien-stun aliendeliver alien) from being too much alike. *Teleport* is a pleasantly entertaining confection, definitely good but not quite great.

(Arnie Katz)

MARS CARS

Data Most/Apple II/48K disk

The treasure troves of Mars beckon the spacefarer, but pre-programmed kill-cars rumble through the maze-like catacombs beneath the Red Planet to give potential looters there just desserts. This unexpectedly addicting maze contest puts you into the Martian treasure vaults and challenges you to get through 16 ever-harder levels of play.

Continued on page 101

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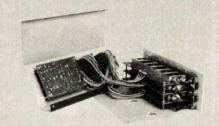
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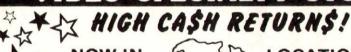
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GAMING and the

Special Controllers Let Everyone Play

By DIANE YANKELEVITZ

ome people think videogames are so bad they're trying to ban them from their communities, but a growing number of folks have found reason for praising them. They are the severely disabled, people who are able to play the Atari VCS using custom controllers.

Tommy Gonzales, 13, is a videogame freak, the kind you hear about who plays **Pac-Man** for hours on a single quarter. Once he was playing the only *Pac-Man* machine in his neighborhood for such a long

time that a group of older

boys got impatient waiting

for their turns and

threw him into a

trash can! That

was before a

gunshot severed his spinal cord. Tommy is now a C-3 quadriplegic. He is only able to move his head and needs the aid of a respirator to breathe. With the help of a specially adapted mouth control he's back to playing Atari VCS videogames for hours at a time. The difference is that now it's one of the very few things he can do for himself.

John Carasic is a 12-year old boy with cerebral palsy. Currently, his favorite videogame is **Asteroids.** John has just recently become able to play videogames because he's acquired a

controller he can use. John is spastic and has almost no control over the muscles in his body. But the ones he does control, he can use to smash electronic space debris with as much—if not more—pleasure as any youngster his age.

John has a pressure switch mounted on his wheelchair by his right knee which is wired for a fire-button control. In back of his head sits a plate with two switches which he hits by moving his head sideways—left and right controls. With the flick of a switch, they turn into up-and-down controllers. (So far, a way hasn't been figured out to allow him to play all four directions at once.) A soft-touch button is placed where he can swing his leg over and hit it for the reset function, so he's able to play all by himself.

able to play all by himself.
John is unable to speak and
has a computer with which he
communicates. When asked to
say something, he lists the
videogame cartridges he
wants to buy next.



HANDICAPPED



Raymond Balsley, quadraplegic, plays using a mouth controller

Kirk Kilgour was perhaps the finest hitter/blocker to ever play for the U.S. National Volleyball Team. He won the NCAA Most Valuable Player Award during his collegiate career and is a well-known coaching figure in both America and Europe. He presently coaches Pepperdine University in Malibu, CA. Kirk is a quadriplegic. He is also a very competitive man who plays Atari VCS videogames for hours at a time and can wipe out a screen of space invaders using a mouth control. He also has a multiple game board which allows him to select from up to eight cartridges with the press of a button.

Tommy, John and Kirk are examples of a growing number of severely handicapped people who are discovering for the first time, that there is something they can do on their own that is fun. Some people consider videogames a waste of time, but these people find it a tremendous morale booster as well as an interesting way to develop the muscular skills they need in order to function. For instance, with the practice John is getting in controlling his head movement, he may one day be able to operate a power wheelchair. Handling the four-button joy-

stick requires the same motion as the one needed to operate a push-button phone or an adaptive driving panel. Operating a paddle control requires the same motion as turning a stove knob or a doorknob. The adaptive controllers can be used by quadriplegics, paraplegics, amputees, those with muscular dystrophy, cerebral palsy and stroke victims.

The person who designs these special adaptive devices is Ken Yankelevitz, an aerospace engineer and computer programmer. After taking the Atari joysticks apart to see what made them tick, or not tick, he decided to try to design a more reliable one. He showed the management at Atari, Inc., some of his ideas and they began referring handicapped people to him.

The challenge was to convert a unit that had been designed for manual manipulation into a unit that could be used by someone not possessing the normal capabilities. Ken experimented with different ideas, including puff, suck and bite switches, telephone keypads mounted at mouth height, helmets and various switches. He worked directly with the quadriplegics, and with their eager reactions and enthusiasm for the project, found a de-

sign that would work. The device allows the severely handicapped to play the very same videogames that millions of other kids are playing.

He found that each handicap is slightly different and requires different hardware to allow the person to operate it effectively, so he began designing many different switching devices. The most popular and versatile is a soft-touch button box controller.

Most young adults with spinal cord injuries had their accidents while involved in some exciting activity, like motorcycle riding. These are not sedentary people and one of their biggest mental problems is boredom. They sit at home or in hospitals staring at TV for hours because there hasn't been much else they could do. Playing videogames gives them a chance to be active, to respond both mentally and physically as they dodge asteroids, defend cities or maneuver a chicken across a 10-lane highway while horns honk and engines roar.

Several hospitals in Southern California are using the controls in their children's and young adults' units and people all over the country are benefitting from these controllers.

Now, who says videogames are bad?



A special head-activated controller is used by John Carasic



By THE GAME DOCTOR

ood morning, gamers, wherever you are! Before we get down to the business at hand, I have a few leftover items to clear up from the last few times out. First off, to the European Odyssey² fan who wondered why the N.A.P.-produced title **Stone**







SMITHEREENS

Sling wasn't available in the U.S., the news is that it is now! The game is available in North America under the title Smithereens. It lets a pair of gamers aim catapults at one anothers' castle towers. Here's yet another reminder to all those T-shirt winners to send us a note regarding their shirt size and address. We've had quite a few problems with mail deliveries, so if you haven't gotten a shirt yet, and should have, please drop us one more line.

Speaking of lines, there seems to be quite a pile-up in the old Doctor's doorway. Stop pushing, you guys! I can fix a broken joystick, but the G.D. isn't of much use in fixing people. . .

Q: Could you clear up once and for all the difference between ROM and RAM? Also, I own the Atari VCS (2600) and am planning to buy the new 5200 when it comes out. Will I have to disconnect the VCS's wires from the switchbox when playing the

other system? Finally, what type of controllers will be supplied with the new system?

(Tim Lyman, N. Pembroke, MA)

Okay, Tim, that's not one, not two, but three fine questions — more than good enough to cop you this month's T-shirt. In fact, just drop us a line that includes your shirt size and complete address, to make sure we

don't get any Tim Lyman imperson-

ators in here.

Here's the poop on ROM vs. RAM: ROM stands for "Read Only Memory" and the cartridge videogames with the chip anchored inside are ROM carts. This means that the entire game program is encoded on the chip and the computer is simply addressing itself to the task of reading it. RAM, on the other hand, signifies "Random Access Memory", the amount of "free" memory the computer has access to. A computer's memory power, therefore, is measured in terms of its usable memory, or RAM. A program that's already been written and is being given to the computer for translation, is ROM.

Now, on to the 5200. This new Atari system uses a new type of RF box — the silver switching unit familiar to all videogame owners — that is *not* compatible with either the 2600 or any other existing home programmable. This means that those arcaders with more than one home unit will have to detach the 5200 from the TV set in order to connect up any other system.

Finally, the 5200 comes with a pair of joystick-keypad controllers that are used primarily for game control and input devices, but Atari has already announced that a 5200-compatible tracball is on the way.

Q: I read in another videogame magazine that Mattel is planning to stop making the Intellivision. Is this true? If so, will Mattel continue to supply software for the system? (Randy Southers, Union Bridge, MD)

A: Just goes to show you, Randy, when you want the facts, look to EG. No, Mattel has not decided to dump the Intellivision, but is, in fact, busy doing a slight technological redesign job on their system. The new, re-



engineered model will be much more compact, but will be totally compatible with existing master components.

As a result, look for the price on the current systems to begin dropping sharply as time goes on. Several rumors of big rebates are already rampant throughout the industry, and look to be based on fact. With ColecoVision retailing at around \$200 or less, Intellivision almost has to bring their price down.

Q: Will color Quadrascan screens be available to the general public in the near future? Also, how, exactly, does Quadrascan work?

(Roddy T., Hacienda Hts., CA)

A: Quadrascan is Atari's trademarked name for their vector graphics monitor. It is so named because it breaks the screen up into four

Q: I own an Atari 400 and wish to upgrade the memory. What is the maximum amount of RAM I can have and which companies offer these upgrade kits?

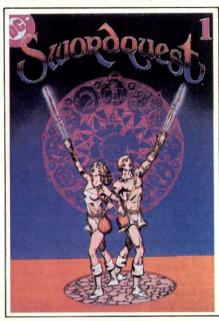
(Dave Bargiel, Detroit, MI)

Producing RAM upgrade boards for Atari's 400, among them, Axlon has a 32K board, Mosaic 32 and 48K. Unlike the 800, where several smaller boards are used in sequence to build to 48K, the 400 uses a single board, which must be removed and replaced with the upgraded version.

Q: I want to buy a computer on which I can learn to program my own videogames. I know that BASIC is too slow for this. Are there any computer systems now available which will allow the user to program his own

or assembly, language — yes. At this time, the Doctor knows of no other computer language as compatible to most videogames. BASIC may be a good introductory language, but I'd guess that 99% of all computer game software published today is in machine language, even the newer text adventures!

• In the August issue of EG, page 35, an advertiser has listed, under the

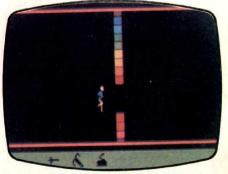


SWORDQUEST

Atari heading, Adventure I (Oct) and also Adventure II (Nov). All I've ever seen are cartridges identified as Adventure. Can you tell me what, if any, difference there is between the two cartridges and how can I tell them apart before I buy? Tank-Q.

(Randy Slinkard, San Diego, CA)

A: The "adventures" alluded to in that ad were probably referring to the new Atari **Swordquest** series, a multipart adventure program which will be released one game at a time. These will be sequential adventures — that is, you must solve the first *Swordquest* game's challenge before beginning the second.



SWORDQUEST (EARTHWORLD)



TEMPEST

"quadrants", giving certain types of game programs greater flexibility. Vector graphics are preferred to the traditional raster scanning technology in the creation of line drawings. Unlike the standard method of plotting a series of points which combine to form a line, vector graphics more closely resembles an "Etch-A-Sketch".

With the advent of games such as Atari's **Tempest** and Sega's **Space Fury**, color vector graphics monitors came to arcade games. Home players can buy a black & white v-g monitor right now — GCE's Vectrex system uses one — and a color version should be available by the summer of '83.

Watch for them. . .

videogames — or will they have to be written in machine language? (James H. Walker, address unknown)

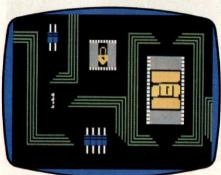
want to check out a super new program from Broderbund available for both the Apple II and the Atari computers called **The Arcade Machine**. This neat little program allows novice designers to select graphic images from a matrix of possibilities, determine angles of attack and virtually program their own **Space Invaders**-type game. The Arcade Machine should make an excellent prelude to programming.

As to whether or not professionalquality designs have to be in machine,

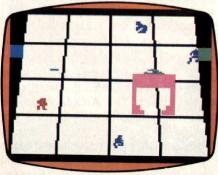
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Q&A/Continued

Q&A QUICKIES: Bobby Long of Stone Mountain, GA wants to know whether Coleco will be producing versions of Zaxxon for the Atari VCS or Intellivision, and the answer is: both. At least as of now, licensing fees are structured so that it becomes difficult to snatch the home programmable rights to an arcade smash without making a VCS version available. Remember, the majority of system-owners out there still own the 2600. Though what Zaxxon will look like on the 2600 I can't imagine. . . Darren Norbut worries in the coin-op capital of the world (Chicago) about game prices rising to 50°. But game prices are still determined largely by the arcade operators, who can set the machine to accept quarters. tokens, cheese sandwiches or whatever. We will soon be seeing the first dual-price videogame - Sega's 3-D extravaganza, Subroc, which will cost 25° in upright and 50° in sit-down versions. Playing time will be almost doubled in the sit-down version. however. . . Doug Bliss of Overland Park, KS, inquires as to whether or not a Tron game will be licensed for the Atari VCS — and he's stumped the ol' Games Quack. As of now, Midway holds only the coin-op rights and Mat-



MAZE-A-TRON



DEADLY DISCS

tel has home programmable dibs. Without knowing the legal ramifications, it is possible that Midway could license Afari their version, but I believe

Mattel's rights are exclusive in the home market. Of course, Mattel could always issue one of their several Tron titles - Deadly Discs, Maze-a-Tron, etc. — under their VCS-compatible "M-Network" banner. Rex Desierto. who's now aware that both O2 owners and Intellivisionaries have access to voice synthesis units, wonders if a similar item is on the drawing boards for the VCS. The situation right now makes it seem unlikely that Atari will be adding chit-chat to the sounds of gobbling and exploding ICBM's. But as I have learned in this crazy, mixedup business: Never say never. If it does happen, you'll read it here first.

Several readers have asked about ColecoVision's VCS Emulator and whether or not the Starpath (formerly "Arcadia") Supercharger will run off it. The answer, straight from the Starpath's mouth, is yes. Anything that will run on the 2600 should run on the Emulator. . And speaking of emulators, a new manufacturer, Protector, is busy producing a similar VCS-adapter for all Commodore VIC-20 systems.

Now here's an interesting question from Lake Oswego, Oregon's Sean McClain, who can't understand how super-arcaders are posting such high scores on Midway's Pac-Man when he's read that the screen "breaks down" after 250 keys. The answer probably lies underneath those four (in)famous ghosties, Speedy, Blinky, Pokey and Clyde. Players vary their "pattern" strategies in some cases to maximize bonus points while, on the opposite side of the spectrum, other gamers base their tactics on avoidance, eating only those ghosts they happen to meet while in the energized state. Then there's the fruit and keys to consider — how many times did the player consume those point-potent delicacies? These and other questions must all be taken into account when explaining the wide range of scores attained by Pac-Maniacs who've made it through the two-and-a-half hundred racks. .

CREDIT DEPARTMENT: Our January issue featured an article covering arcades in the 21st Century. Unfortunately, we neglected to credit the photographers, Heithaus-Young and Dave Lustig, for their contribution. Our apologies and appreciation.

And that about wraps up this session with the old Game Doctor. But keep those cards, letters (and tokens) coming, gang! Until next month, Happy Arcades to You!

GROW WITH

A special message for electronic games retailers

Playing electronic games is now America's fastest-growing hobby. Here are some facts:

- ★ More than 10 million quarters are dropped into current coin-op champ "Pac-Man" every single day.
- ★ Nearly 5 million programmable videogame systems are hooked up to U.S. TVs already. Four million more are expected to be sold this vear alone, along with 30 million game cartridges to play on them.

★ Sales of computer games are expected to exceed 1 million units by the end of the year.

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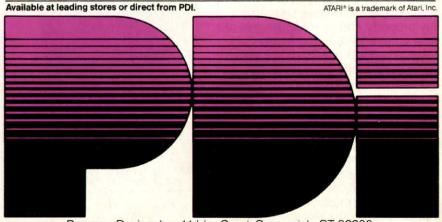
Most Innovative Game of 1982 (Electronic Games Magazine)

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Program Design, Inc. 11 Idar Court, Greenwich, CT 06830



Monopoly Meets the Computer

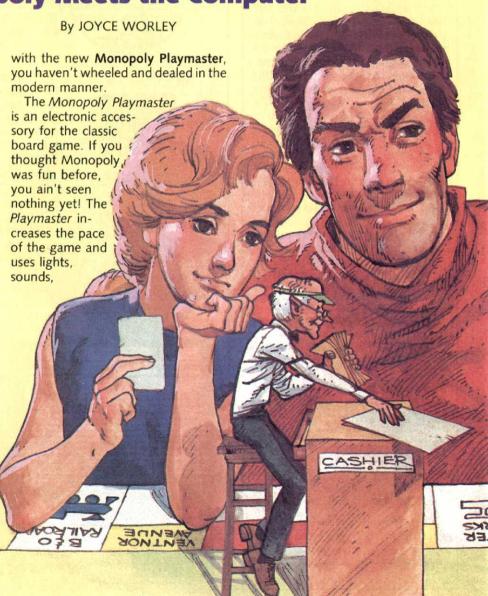
It's winter. There's snow on the ground, and cold winds that make outdoor pursuits less than inviting. But what better way to spend the cold winter days than with bright new electronic games. This month we're looking at three games guaranteed to make the hours go quickly until spring comes. There's a fine old family favorite, a high-skill challenge for the arcader with fast reflexes, and a new classic that appeals to all ages. If you're looking for a little winter excitement, run down to your local store, where there's always certain to be something that will make the hours fly.

MONOPOLY PLAYMASTER

Parker Brothers/\$65

Roll the dice and move your marker. Buy property and increase the size of your empire by building houses and hotels. Then just lean back and watch the cash flow into your account.

Sound familiar? It should. Parker Brothers' Monopoly is still the most popular board game in America, and there's hardly a household that does not have a Monopoly set stuck back in the closet. Now, Parker Brothers has something to enhance the famous game, something that brings this old reliable into the modern world of electronics. Until you've played Monopoly

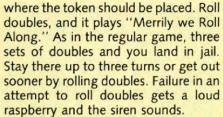


and other visual effects to elevate the action into the 21st Century.

Put the Playmaster in the middle of a regular Monopoly board. Line up the Community Chest and Chance slots of the Playmaster with the corresponding spots on the standard board, and all the property spaces on the board will correctly match up with the Playmaster properties. From this point, the game is just like a regular round of Monopoly. A human banker must still take charge of the money and property cards. Players choose tokens and start from "go." Each contestant, one at a time proceeding around the table to the left, presses the token button corresponding to the piece he chooses. This tells the computer the number of players and their order of play.

The Playmaster strobes each player's token light to indicate his turn to play. To start, press the dice roll but-

ton. Flashing lights circle the Play-



If you land on Chance or Community Chest, and a card directs your token to a different location, hold down the "arrow" button until the light reaches the correct spot, to inform the computer of your movement.

The Playmaster assumes someone will buy any unowned property that is landed on by a gamer. If the player doesn't want it, the property must be auctioned off by the bank. In addition, the bank randomly announces auctions after every four to six turns. The auction sound rings forth and auction lights flash, then a steady light shows which property is to be sold. The winning bidder pays the bank for the

> action's completion. The game won't proceed until this is done. When all property has been sold, the game unit starts announcing buybacks at random intervals, every four to six turns. A buyback tune plays and the buyback lights flash, then a steady

light indicates which color-group has been selected for repurchase. Only singly owned properties within a group can be bought back; if a player owns more than one property in a color group, he can ignore the buyback. However, if the player owns only one, he must return the deed to the bank. If unmortgaged, the bank pays the full property value. If mortgaged, the bank pays the mortgage value less 10% interest.

With the help of the Playmaster, it's possible to take out property loans instead of just mortgaging them in the traditional way. The only requirement is that you must own all property within the color group. Then press the loan button. The tune "We're in the Money" plays, as you continue pressing the button until the lights advance to the correct location. If the light shines steadily, a loan is available. Flashing lights indicate there's already a loan on that color group. If the lights go out, it means there previously was a loan which has either been paid back or defaulted. If a loan is available, press the bank button. The tune rings out again, and the player collects the money from the bank.

There are big advantages to taking loans instead of mortgaging your property. First, you get the full value of the color group, instead of only 50%. You can build houses and hotels on loaned-against properties, but not on mortgaged properties. And you can still collect rentals on properties with loans but not from mortgaged land. But there are disadvantages, too. Eventually the Playmaster calls in the loan and the bank demands you repay it in full at once. You can't repay any loan before it's called. The recall comes at a random time chosen by the Playmaster, but not until you've taken at least seven turns. The "call loan" melody plays and lights flash. Either pay the loan in full plus 10% interest, or return the color group to the bank for auctioning.

The Playmaster has a full dozen separate sound effects, from "Charge" for passing go, to "Taps" for bankruptcy. "I've Been Working on the Railroad" plays when you land on a railroad, raspberries sound to indicate taxes, and a European siren accompanies a trip to jail. Beethoven's "Piano Sonata" signals Chance/Community Chest, and the "Fifth Sym-

phony" calls loans.

Almost everyone plays Monopoly by "house rules," altering the game slightly to match their own family's tastes. The *Playmaster* doesn't interfere with this. It's still possible to use house rules, except in one circumstance. It is absolutely necessary that unowned property must be either purchased when someone lands on it, or sold at auction. This is the one rule that cannot be altered when you use the *Playmaster*.

The Playmaster doesn't supersede the regular Monopoly game; the arcader must have a standard Monopoly set to use the Playmaster. But what it does do is greatly enhance the game with pretty lights and tunes, while speeding up the pace. It brings new life to an old favorite, significantly trimming the length of time for a game, and adding musical signals and flashing lights to make an already great game even more fun to play. It's easy to use, and even a younger family member should have no difficulty with it after the first run-through. The Monopoly Playmaster is a real winner for every family who enjoys the game.

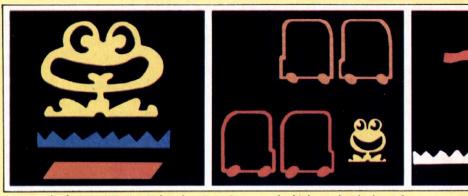
FROGGER

Coleco/\$70

No one knows if Froggie is goin' a-courtin', or if he's just trying to get to the other side of the road. Whatever his reason, people have always been excited about the jumper's travels. There's something about a frog's love life that makes all men anxious to help him along, and maybe that's part of the reason for the tremendous popularity of the Sega pay-for-play machine that exploits the trials of the hard-hopping toad in his efforts to get back to the hearth and home — in this

FROGGER STAND-ALONE





Use the four-position joystick to hop Froggie across the highway, but look out for cars!

case, his comfy cave on the other side.

Coleco carries the sport of frogwatching one hop further than it has ever gone before. Now the ardent toad-fan can enjoy a miniature version of the Sega hit at home. There are a few notable differences between the diminutive stand-alone and its big brother, but most people will agree that the cuteness of the Coleco miniarcade makes up for the small deficiencies it may have.

The object of the game is to get the croaker across the road to the safety of the sidewalk where he can catch his amphibian breath for a moment, then ferry the river to Froggie's home, a snuggly lil' cave on the far side of the stream. It would all be so simple for our green friend if he were the only inhabitant in his part of town, but the road is clogged with traffic moving hither and fro; he must share the sidewalk with a deadly serpent, and the only way to get across the river is by catching rides on the backs of turtles and floating logs. Life just isn't easy if you're only a frog

The gamer only has to master one control to get Frogger home. The joystick allows movement forward, backward, or from side to side. The unit only has two other controls, the on/off skill selection, and a reset button so you can play another game immediately. Hustle the toad through alternating rows of traffic, hopping from lane to lane when the highway is clear enough to pass. When Froggie reaches the center strip, let him get his breath before his perilous trip across the river. First he must leap onto the back of a swimming turtle, then to a row of logs floating down the stream. Be careful not to float off the playfield, because that means instant death. Keep jumping from turtle to logs, until you have him adjacent to his home. Froggie's final hop must take him into his cave, or else he will perish.

The row of traffic, both on the highway and in the river, move in alternate directions, so Froggie must use a little strategy to keep from being swept off the edge to his destruction. The first lane of cars moves from left to right, so jump into the fray from a midpoint on the screen, then follow behind a car until you have an opportunity to jump behind a vehicle in the next lane, this time moving from right to left. Then leap to the next row, timing Froggie to land in a vacant spot, behind a car. The next jump takes him to the sidewalk. Catch your breath, then hop a turtle and ride from the left side of the playfield to the right. There, hop a log to carry Froggie back to the left. This brings him to the only real hazard he must face. The second row of turtles dives at random intervals. If old green-jeans is on

the wrong turtle at the wrong time, he'll drown beneath the waves.
There's no warning whatsoever that the turtle is about to dive: the wary gamer must note the spot where turtles like to dive, and try to time the jumps to avoid the phenomena that always occurs on the left third of the screen.

Once past the diving turtles, it's a simple matter for the arcader to get his toad through the last couple of hops, to the safety of the cave. At skill level one, there are four hoppers to guide









Hitch a ride on a friendly turtle's back, but don't let it carry him off the side!

home, then the next round begins. But now there's no safety strip, because the sidewalk is the home of a wriggly serpent. The red snake slithers across the walkway from right to left, and one touch of his coil squeezes the life from our hero. The only way to handle the snake is complete avoidance. Time the jump into his domain to land behind him on the sidewalk. Then just follow at a respectful distance, until you get to the far left and are ready to board the passing turtle-train.

At skill level two, the gamer must get six frogs across to their caves in each round, and the ser-

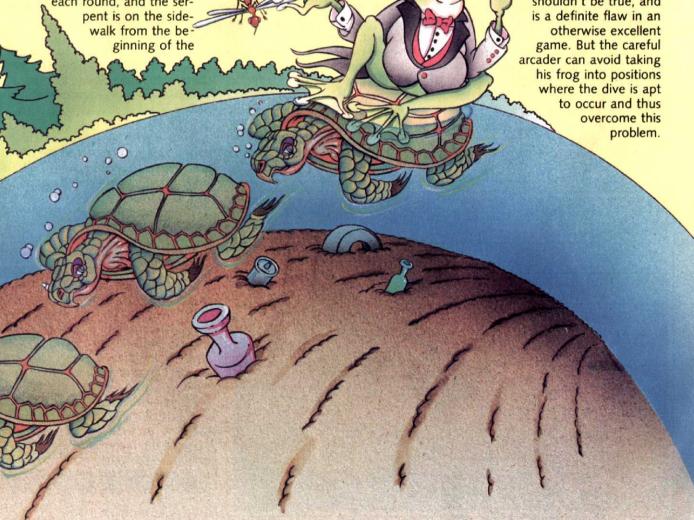
game. There's also more traffic on the highway, making it more difficult to find clear spots for toadie's hops.

The gamer gains four points for each row of hazards he can maneuver his frog through. When a toad arrives safely home, it's worth 10 times the amount of remaining time, and there's a 300-point bonus for filling all the cave-homes with frogs. The arcader starts play with three hoppers and earns another at 5000 points.

This is a charming unit, styled in handsome green and black to resemble the Sega coin-op. The joystick operates very smoothly. Animation borders on the adorable; it's hard to find fault with the cutely matrixed river denizens, and the road traffic's cleverly cartooned vans. The playfield is very colorful, using red and three shades of green to make up the game components.

The only real flaw in the unit is that there's no warning when the turtles are ready to dive. This shouldn't be true, and

Electronic Games 93



Arcaders will miss the logs turning into crocodiles, and Froggie will almost certainly regret the absence of the lady toad that graces the coin-op because there's-no lady love in this version. But the end result, even with the deficiencies, is that Coleco has done it again. Frogger is an attractive addition to their series of mini-arcades, pretty to look at and fun to play.

SUPER COBRA

Entex/\$50

Missiles scream past, as enemy forces try to knock your 'copter out of the air! Bomb the surface-to-air weapons before they get off the ground. Once the missiles are launched, it takes careful flying to avoid mid-air collisions. When past the gun emplacements, there are new problems to face. First, meteor showers create an almost impenetrable barrier, followed by treacherous terrain as you first skim over the tops of mountains, then maneuver the 'copter through a narrow cave passage. The mission: reach and destroy the enemy base. Grab your joystick and man the missiles - Super Cobra takes every bit of piloting skill you can muster!

Super Cobra by Entex is based on the Konami commercial arcade shootout of the same name. This high-quality hand-held device will keep even an experienced arcader hopping to stay ahead of the missiles, avoid the terrain, and complete his mission before fuel runs out. This challenging game takes nerves of steel to master.

A handsome array of controls helps

the gamer. Choose between two skill levels, set the speed control, and play the game with sound or mute. Even at the lowest skill level and slowest speed, the game is a tough one. But to make play streak along at highly sophisticated levels, use skill two and set the control on fast, then pilot your copter at jet speeds.

During play, the gamer launches sidewinder missiles straight ahead of his trajectory, while knocking out ground targets with bombs. Careful juggling of the joystick control makes the 'copter hover for short periods, and the speed can be varied faster or slower during game play.

In the first section, enemy forces have an impressive array of ground-to-air missiles. Try to blast them before they get into the sky. Once launched, knock them out of the air by carefully piloting them to line them up in front of you so your sidewinder missiles can destroy them. But keep your eyes on the fuel gauge; when you start running low, bomb the enemies' fuel depots to refill your tanks.

The second screen is very difficult. Meteors whirl across the sky, and the unlucky pilot must twist and dart between them. If they strike the 'copter, it is destroyed. There's little time to do anything but maneuver to avoid collisions, but remember to continue to drop bombs, picking up a little fuel as you go along.

Mountains almost completely fill the third screen. The pilot's only hope is to fly high, blasting away the missiles and fuel tanks that block the tiny passage-

ways. The fourth screen is a cave. Skillful steering is the only answer if you want to survive.

After completing the fourth screen, Super Cobra is in range of the enemy base. This is a bonus round of play, worth 1000 points if you succeed. But there's little leeway for mistakes. The bonus round contains no fuel tanks, so the reserves had better be full when you start. And it goes so quickly, there's only time for a few passes at the enemy base.

There are several ways to score points. Get one point for every square the helicopter flies over. A missile destroyed on the ground is worth five points, and tallies eight points in the air. Fuel tanks are the most valuable targets in the regular game. They give 10 points and add fuel to your supplies. Finally, destroying the enemy missile base in the bonus round gives 1000 points to the successful chopper pilot.

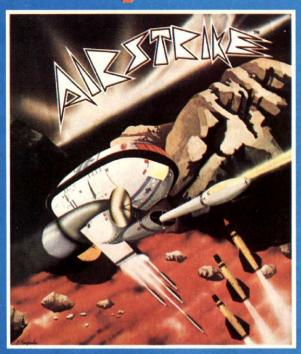
The game status display indicates the round of play, one through four, then clears itself in the bonus round. Each time you complete all five rounds, a flag appears. There are four flags representing one round each, a flag that counts as five rounds, and two flags representing 10 rounds each. This makes it possible to count 29 completed rounds of play. The game starts with three Super Cobras, and you get a fourth chopper at 1000 points. Digital scoring rolls over at 10,000 points.

Some stand-alone games are too easy for an adult gamer to enjoy. This is not the case with Super Cobra. This is a high speed game requiring skill and coordination if you expect to master it. The fluorescent display successfully uses a few elements to produce complex imagery. The 'copter is bluegreen, as are the fuel tanks. All other game elements are bright red. Terrain is made of square blocks, piled on top of each other to form walls, buildings, and the cave. The terrain scrolls past the chopper at the rate of speed the gamer selects. The most difficult playscreen is the second. The meteors are actually matrixed flying red boxes hurtling across the screen, which the pilot maneuvers between.

Keep one hand on the joystick, and the other on the firing buttons. Super Cobra is the first of a new generation of hand-held games from Entex, representing the state-of-the-art on scrolling shoot-outs for stand-alones.

SUPER COBRA (ENTEX)





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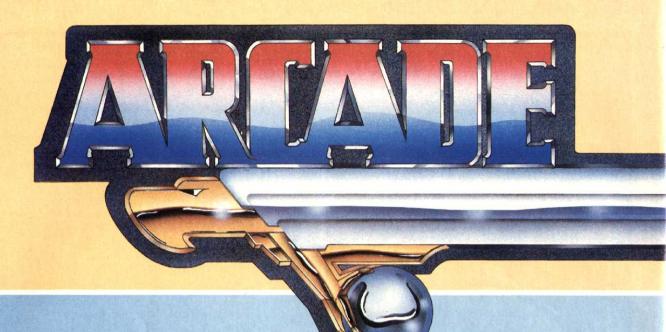
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Pizza and Games — A Sizzlin' Combo!

By LISA HONDEN

ave you ever wondered why some people out there still oppose the notion of arcades? Perhaps it's because there still aren't all that many family-oriented ones around—not yet, that is. This month, EG hits the East Coast, to meet two partners who serve up pizza and videogames in an innovatively entertaining way!

Tony Greco and Steve Kass, proprietors of Tony Greco's Pizza Machine located in Island Park, NY, believe their business is entertainment. By offering coin-ops and pinballs to gamers, and giving the rest of the family everything else from soaps to "Monday Night Football" to some of Hollywood's finest, the pair are attempting to fulfill the entire family's entertainment needs.

Both Tony and Steve trace their roots to the entertainment industry, having been heavily involved with major nightclubs for the past 15 years. They feel Pizza Machine could be a great alternative to the bar scene, bolstered by the hot trend toward electronic games. Thus, their decision to give the gamers the machines they crave, along with a few other electronic diversions and pizza!

Included in Pizza Machine's inventory of impressive state-of-the-art audio and video equipment are: an Aquastar III B Projection and Kloss Projection System, eight color monitors, three Panasonic W-J 200





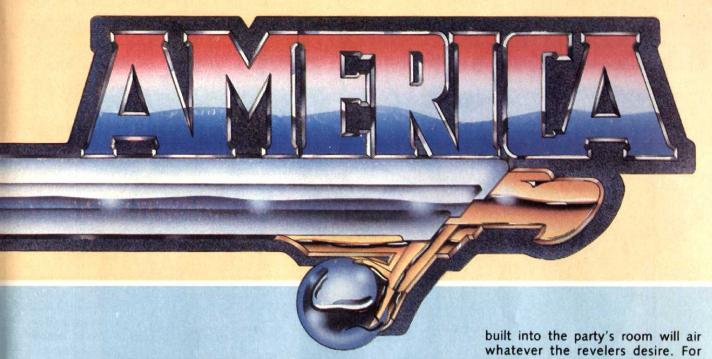


Video Switchers and two Sony SL-5000 VCRs, not to mention 37 coin-op and three pinball machines.

Pizza Machine makes as few rules as possible, which may account for the Pac-Man cookies being gobbled down while players simultaneously eat the video version off of a Pac-Man board! Here, people who enter without shoes

or even shirts can still gain admission, since the guys carry extra articles of clothing for that especially casual dresser.

The only rule that kids may not appreciate is that it's impossible for anyone under 18 years old to enter the establishment unaccompanied by an adult. This gives Pizza Machine a more











relaxed and controlled atmosphere and also blunts any potential criticism from anti-arcaders. You could say the arcade-oriented restaurant is "adult" or "adult-accompanied" only!

Parents get just as involved in all the electronic gadgetry as the kids. And when the folks get tired of zapping UFOs, Dad can have a beer and watch

good ol' Howard Cosell report while Mom may prefer to tune in to macho Tony Geary of General Hospital. Even video records will rock you after 10 p.m.!

There are three main dining rooms where you can always find a party in progress. Depending on the type of group involved, the video monitors

built into the party's room will air whatever the revelers desire. For example, childrens' parties will usually run cartoons while a more sophisticated group may prefer to watch movies or listen to video music.

At the end of each month, Steve and Tony bestow an actual coin-op to the high-scorer of a designated machine. A complete reconditioning job is performed on the winning machine—right after the winner's name is announced. Not bad.

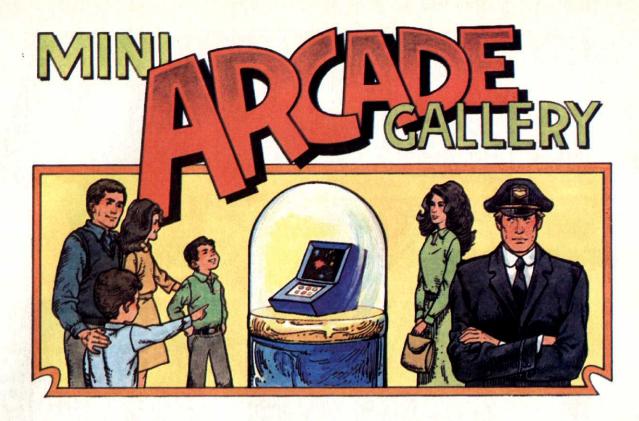
Kids under 12 are invited to join the Pizza Machine Fan Club. Membership entitles you to two free tokens upon joining, a free button to be used for future promotional events and membership functions, and two extra game tokens with each future Tuesday night visit, provided you fill your face with at least one tasty food purchase.

The two entrepreneurs host approximately 6000 patrons each week and find they rely heavily on customer feedback to decide which games stay or blow. The facility houses the very latest in coin-op videogames, which are periodically relocated around the game-playing area. In this way, the men hope to someday hit upon the optimal arcading conditions, where players can gobble goblins or obliterate nasties to their heart's content, without worrying about elbowing that anxious player who's just itching for a chance to beat your score next!

So the next time you're in the mood to save our planet or destroy someone else's, check out Tony Greco's Pizza Machine—and don't forget to bring your appetite.

There's plenty to mangia!





You Are Earth's Last Defender!

By JOYCE WORLEY

ADVENTURE VISION

Entex/\$75

There aren't many programmable stand-alone games on the market at the present time. This aspect of electronic gaming is in its infancy, and up to this time only a few companies have thrown their joysticks into the miniarcade contest.

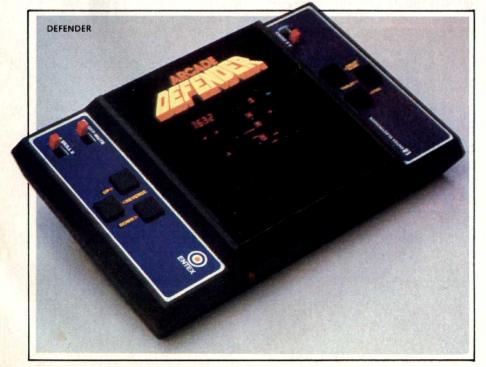
For the last few months, this column has examined some of the programmable mini-arcades now available. Coleco's "Total Control 4" offers gamers a chance to play Football, Basketball, Soccer or Hockey, all on the same unit. Milton Bradley's "Microvision" has an entire library of games to fit the tiny hand-held system.

"Select-A-Game" from Entex already has more than a half-dozen cartridges, and the manufacturer promises there will be more. "Vectrex", currently the king of programmable mini-arcades, was introduced late in 1982 with a library of high-quality arcade-style cartridges.

This month we're looking at Adventure Vision, the second generation programmable stand-alone game from Entex. It's a big system with a commanding appearance, standing almost 10 inches high, 81/2-inches wide, and 13-inches deep. The viewing screen measures about 61/2-by 41/2-inches, and the image fills a space measuring roughly 4- by 4-in. Adventure Vision generates an impressive range of sounds through the selfcontained speaker in the bottom of the unit. Thanks to the innovative addition of a sound-jack on the chassis, the midnight arcader can keep it all to himself using mini-headphones (not included with the game), or Adventure Vision can be played in silent mode.

Adventure Vision can be played solitaire or with another gamer. The console has twin sets of buttons, four on each side for dual play, and a single joystick between the control buttons to be shared by both players.

A red filter on the screen is meant to



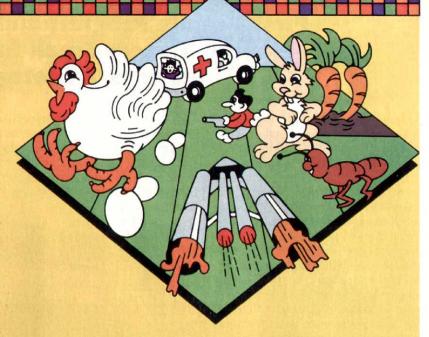
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Step Right Up, Ladies and Gentlemen, and Meet the Adventure Vision — the First Totally Programmable Game-Playing System Small Enough to Fit on a Tabletop!

discourage excessive light from striking the viewing area. A whirling 4- by 4-in. mirror inside the cabinet reflects the action, producing an image by technological magic. The picture appears almost three-dimensional against the black interior. The image itself is made up of tiny red dots. The new system of personal graphics display introduced by Adventure Vision produces over 6,000 separate and distinct light locations, so that a very complex line drawing can be made to move across the screen with what Entex claims is over 20 times the detail permissable in other systems.

A portal in the middle of the console holds the game cartridge. Adventure Vision comes with **Defender**, patterned after the williams arcade classic. Pilot the Defender ship and protect earth from wave after wave of invaders from outer space. the invaders aim to kidnap the humans left alive on our troubled planet, and your mission is to rescue them before they become part of the aliens' tricky life cycle.

Aliens come in five life forms, and none are friendly to the arcader. Landers kidnap the humans and carry them toward the top of the screen. There they merge into mutants that seek to destroy the ship. Pods free-float in space. When shot, a Pod releases a random number of Swarmers. Swarmers are intelligent and zero in on the ship if not destroyed first. Bombers lay space mines that destroy the Defender when touched.

The gamer uses an impressive number of controls, though not so many as the Williams arcade version. The introduction of the joystick to Defender considerably simplifies the play mechanics by moving the ship up and down, backward and forward. This is a much easier system to master than the multitudinous buttons in the arcade game. Adventure Vision only uses three buttons during play. Button One releases a smart bomb that destroys all alien life in the viewing area. Start with five bombs and get one additional bomb and Defender ship at each 10,000 points scored. Button Two throws the ship into hyperspace. Use this only as a last defense, as it is dangerous. In hyperspace, you run the risk of being blown up, a random occurence. Third is the laser-fire button. Laser blasts demolish everything they touch including

touch, including sion, but it's good enough for a challenge to the gamer. ADVENTURE VISION If Adventure Vision is played in semi-darkness, the image is bright, but a little shimmery due to the technology involved. The whirling mirror makes the line drawing appear to waver. It's not too bad in the game functions. but the game status screen is so small that the flickthe humans. In addition to the action. the screen con-ADVENTURE tains a game status display showing the score, remaining Defender ships, number of smart bombs left, and a radar scanner indicating the

When the aliens succeed in destroying all the humans, Earth is destroyed and the Defender must battle fleet after fleet of aliens in outer space. The game ends when all six Defender ships are demolished.

position of all alien life forms in rela-

tion to the Defender ship.

Adventure Vision is an ambitious effort by Entex. The looks of the unit are certainly on the plus side. It's really

er makes it hard to read the scores. But it's usable, and many gamers will feel that the complexity of the Adventure Vision games makes up for a little flicker. However, the unit can hardly be played at all in light. The image becomes so faded that you can't see any on-screen targets.

handsome, with well thought out

controls and design. The Defender

cartridge that comes with it is exciting

with good play-action and high speed.

The animation of the aliens isn't as

complex and lovely as the arcade ver-

Adventure Vision has more arcadestyle game cartridges on the drawing board. Before year's end, Turtles, Super Cobra and Space Force will complete the library of games, for around \$18 each.

MARS CARS

Continued from page 82

Each playfield is a different maze constructed of small rectangular barriers. You destroy a barrier by moving over it, but the defenders can roam about more freely as you eliminate these 10-point obstacles. Tucked into each corner of every playfield, usually with a guard very close at hand, is a treasure. You must drive your own vehicle into each corner, scoop up the treasure and then exit through the "warp door" located halfway up the right-hand edge of the playfield. Completing one such room immediately sends you to the next one, where slightly smarter Mars cars will chase you hither and yon.

Control is by either joystick or keyboard at the player's option. As usual, the joystick option is overwhelmingly preferable, but **Mars Cars** isn't even too bad when played by tapping the Apple II's keys.

Datamost released David Husch's Mars Cars without a lot of fanfare and put it in a package that isn't apt to stimulate many casual browsers to give it a try. A wise computer gamer won't let the drab sleeve prevent purchase of what is really an enjoyable disk that's worth playing again and again.

(Arnie Katz)

Next month, ladies and gentlemen, we'll be reviewing a totally unique type of computer software from EduWare, one of the most innovative game producers in the field. The game, entitled Marathon, duplicates the fabled race between the tortoise and the hare in a unique and entertaining game.

So place your bets -the tortoise is slow but steady, and the rabbit is quick but cockey. You bet your money and you take your chances.

See you next month.

(

JOYSTICK UPDATE

Continued from page 28

used more often. Also in their extreme positions, potentiometer controllers supply the same kind of signal to the game computer as the on/off type. In this respect the potentiometer controller can play a game meant to be played by on/off controllers, but the reverse is not true.

Future pieces in this series will discuss how paddles (also a form of potentiometer controller) work and we'll also take a look inside the new world of tracball controllers and button clusters.







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SWITCH ON!

Continued from page 6

The folks in Washington have gone from permitting the distribution of dangerous drugs (like thalidomide) on the basis of inaccurate tests, to banning substances (like cyclamates) in response to inconclusive tests, to damning something as innocuous as videogames on the basis of no testing at all! It is unfortunate that Dr. Koop's intemperate remarks may actually undermine the credibility of the Surgeon General in future cases, in which the hazards may be very real and very serious.

The observant will notice that this editorial is not a point-by-point refutation. Such a response is impossible, because Dr. Koop did not introduce a single piece of evidence in his illconsidered diatribe. Besides, Dr. Koop will definitely have to do a whole lot more research on the subject of videogames—his comment, that all these games are no-holds-barredshoot-'em-ups, is symptomatic of his ignorance on this topic-before it will even be possible to have a meaningful dialogue. If the Surgeon General thinks he can make a case against videogames, let him hold nationwide public hearings where proponents of both points of view can testify so that the truth will become known.

This is the time when electronic gamers across the land must make ourselves heard. If you were shocked and angered by Dr. Koop's unsubstantiated attack on videogames, please fill out the coupon below. Electronic Games will collect all the responses and see to it that this "shoot-fromthe-hip" official — and President Reagan who appointed him-sees every last one of them.

Let's make the voice of videogamers heard throughout the land, before wrong-headed zealots like Dr. Koop pull the plug on our fun.

READER REPLAY

Continued from page 20

tabletop games, for some reason this problem sporadically turns up on the Pac-Man model. Coleco has no engineering explanation, and our technical whiz, Henry B. Cohen can only guess that perhaps the heat from soldering created a tiny bug in the chip. Until Coleco comes up with an answer on this, we can only suggest that any units so affected be sent to the company for inspection.

SHORT SHOTS: Christopher Galbraith of Southfield, MI also enjoyed our piece on "Joysticking" it to Pac-Man and wondered if a similar procedure would work on his Entex version of the game. The answer is: almost certainly. The technology discussed in that article should prove adaptable to any existing tabletop or hand-held electronic game, as stated at the end of the column. . . Eric Kinney of Walla Walla. WA has the address of a company called Recycled Software who have an exchange for Apple II game software: Box 136, Rt 1, Walla Walla, WA 99362. Finally, Ali Maleki of Switzerland wonders how much the Starplex consolecontroller costs. It carries a reasonable price tag of \$29.95 here in the states, but may sell for more in Europe. . .

Use this coupon to voice your feelings on the current videogame situation

Mail to: SURGEON GENERAL Dr. C. Everett Koop Parklawn Building Room 18-67 5600 Fishers Lane Rockville, MD 20857

Dear Dr. Koop:

As a concerned and enthusiastic gamer, I wish to protest your undocumented and unprovoked attack upon videogames!

APOLOGIA: Back in EG #3, our first coverage of the then-new Nintendo coin-op, Donkey Kong carried the blurb, "King Kong Goes Coin-Op". In those halcyon days, we weren't as up on our videogame trivia and, hence, failed to realize that "Donkey Kong" was an approximate English translation of "Stupid Ape". Instead, we wrongfully assumed that the "Kong" in the game's title referred to that titan of Tinsletown, "King Kong".

Nintendo officials have corrected this impression. "King Kong" is a separately maintained license, the home rights to which have already been purchased by Tiger Electronics. The reason for dredging up this blunder from antiquity is that our just-published EG Buyer's Guide features a reprint of that particular column, complete with erroneous blurb.

We would like to extend our apologies to King Kong, Donkey Kong, Universal and Nintendo. After all, you don't go around insulting gorillas. . .

Okay, gamers, remember to send those letters to: Reader Replay, care of EG at 235 Park Avenue South, NY, NY 10003.

FLIGHT SIMULATOR

Continued from page 24

loose, with lights blinking, bells clanging and a shudder identical to that of a real helicopter in deep trouble.

Thirteen simulated targets - four airborne, three submarines and six surface ships - can be programmed in along with enough electronic jamming to give the sensor operator a permanent headache. Finally, for that extra bit of realism, if the crew ditches their S2 at sea, the simulator actually pitches and rolls as if it's really riding ocean swells.

The first time I went for a "ride", I was smart enough to go along as a passenger, sitting in the copilot's seat and watching instructor Lt. Mike Hoyt go through the motions.

For orientation sake, the instructors punched in the scene for an active runway at North Island Naval Air Station. And there we were, sitting on the runway at night. (All operations are conducted at night. That way, the tapes don't have to be as detailed, thereby saving production costs. The Navy also feels that if their crews can operate at night, daytime flying ought to be a piece of cake).

After warming up the engine, Lt. Hoyt received clearance from the

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North Island Tower. We gently lifted up, tilted the nose down just a bit and with "rotor" clattering, slowly picked up speed and moved down the runway. I almost needed motion sickness pills!

Gradually we picked up speed and altitude and left North Island behind. To our port side was Coronado and San Diego, shimmering in the night. Even the Coronado Bay Bridge, which connects the Coronado peninsula with San Diego, was there, properly lit up.

At first, we just bored holes through the sky, whizzing around San Diego as Lt. Hoyt showed me how the ship handles. Pushing in on the left foot pedal and moving the stick to the left, we smartly turned—up, down and all around.

Wondering how sophisticated the graphics were, I asked what would happen if we took aim at one of the many high rise apartments and condominiums that dot the Coronado shoreline. I had to open my mouth. With a knowing grin, my pilot went for the nearest condo.

Now, I knew it was just a simulator. I knew we were on the ground, or at least only 10 feet above it on stilts. I also knew it was just a computer image. But as the condo got closer, I started to sweat.

Since we were looking at a complicated series of dots, when "impact" occurred, we simply kept flying right through the building. Still, it was enough to send chills down my spine.

Lt. Hoyt then wheeled us around in a tight turn and descended to the lights of the Coronado Bay Bridge. Suddenly, we were flying from Coronado to San Diego at automobile height. Good thing there were no oversized trucks on the road that night.

The instructors then punched in an aircraft carrier and San Diego disappeared. Now, off in the distance, sitting alone in a midnight sea of black, was a lit aircraft carrier waiting for us to land.

Slowly, we approached. I asked the pilot what the carrier looked like from the front, and he obliged by taking me on a spectacular 360-degree tour of the ship—from 50 feet out.

Then we landed, slightly hard, and took off again to look for a frigate. This time it was a bit on the hairy side, because the helo pad of a frigate is miniscule compared to a carrier flight deck. We inched along until we were right alongside the ship, then maneuvered in and set down.

Fascinating. Well, thanks a lot guys. What? You want me to fly this thing?! "Sure", I replied, "a piece of cake." I've suffered from foot-in-mouth disease most of my professional career, why change now?

Switches were clicked, and we were back at North Island, sitting on the runway.

Chewing gum like the pros do, I revved up the turbine and pushed down on the throttle. The helicopter gently started moving down the runway. Definite piece of cake. Hey, what's that bucking. What the hell, why is this thing shaking like we're inside a washing machine? I'm going too slow? Now he tells me. More throttle, lean into it a bit more. Slowly the shaking stops and we gain altitude. Like I said, nothing to it. . .

Everything was fine as long as I flew in a straight line and kept the air-speed up. Lt. Hoyt continually reminded me to watch the instruments. What do you mean watch the instruments? I'm too busy flying. What does he want me to do, watch the instruments or watch where I'm going? Those were the thoughts spinning in my brain.

Climbing to 500 feet, I slowly nudged the helicopter starboard, and we cruised out over the Pacific. Who do these guys think they're kidding? This was child's play!

With a roar and a thud, two F-14 Tomcats streaked out of the night and zoomed past us. It was nice to have friendly air cover. But hey guys, come back, where are you going? Hey, what's that streak over on the horizon? An MiG? Zoom! An enemy aircraft buzzes us. The radar picks up a surfacing submarine. Friend or enemy? Hell, I'm still trying to locate him when the helicopter shudders. We've been hit! The fire warning lights come on.

Pull the fire extinguishers! Pull the fire extinguishers? I don't even know where they are! An enemy missile screams by. Nuts. We're going down guys. Every man for himself. Lights flicker, bells ring and the whole damn thing shakes so hard I'm surprised we haven't fallen apart. I bank hard and then, presto, the screen freezes and the controls lock. The rear door opens up and a smirking group of instructors are doing all they can to refrain from outright laughter.

Oh yeah, that's right, this is just a simulator. Boy, you could have fooled me!

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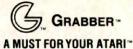
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PROGRAMMABLE PARADE

Continued from page 37

SPACE SPARTANS

Mattel/Intellivision with IntelliVoice

Of the initial trio of releases for Intellivision with its new voice module, Space Spartans is both the most accessible and the most familiar. A sense of videogame deja vu may even be inspired by this cross between Star Raiders and Space Battle with chatter.

Getting maximum mileage out of its keypad controller, Mattel assigned functions to 12 keys and the firing button. Not only can the keypad summon up hyperdrive, battle computer, shields and tracking computer, but it can also gave status readouts, energy level and initiate repair circuits.

Space Spartans uses the familiar sector grid for intergalactic maneuvering and provides a front-on tactical view of all interspace combat. The graphics, however, lack the fluid refinement of a game such as Space Battle and present, instead, a potpourri of crude and blocky images. This may be due to the nature of the IntelliVoice, which seems to run off the Master Component directly. A cutback in graphic resolution may well be inevitable with Intelli-Voice cartridges, at least until the designers become more familiar with it.

Now the big question: how's the voice? Actually, there are four different voices, male, female, robot and alien, and the speech is generally clear and audible. The female voice is definitely the most distinct, however, in its role as ship's computer (keeping your pilots up to date on the condition of the shields, hyperdrive, impulse drive, battle and tracking computers). The male voice (portraying the central computer) is not quite as crystal clear and the starbase computer's robotic speech is a trifle ragged. The alien, meanwhile, is heard only at the game's conclusion, at which point he intones: "The battle is over."

Space Spartans is a long way from being a revolutionary videogame, in terms of concept, design or execution. It does what it does quite adequately, though, offering Intellivisionaries a classic strategy and tactics space-battle scenario. The voice module is well integrated into the game play, using the different voices quite inventively to perform the various functions.

All told, this is one of the better efforts to come from the Mattel videogame labs. Both strategic and dogfight elements are well integrated into the overall game and, though not quite up to highest Intellivision standards, the graphics are more than acceptable. Intellivision fans should certainly give Space Spartans a look—and a listen.

THRESHOLD

Tigervision/Atari VCS

Where do all the ideas for new videogame cartridges come from? As readers of **EG's** "Inside Gaming" column each month know, anything from a traffic jam to a childhood fantasy can provide the inspiration for a videogame.

One important source of concepts over the last several years is the family amusement center. Space Invaders, Asteroids and Donkey Kong are just three of the many titles that have leapt the gulf separating coin-op from athome gaming without any ill effects.

Yet the coin-op well isn't bottomless. The supply of pay-for-play machines suitable for translation into cartridges is far from inexhaustible. The home market requires too many new games in too short a time period for the arcades to ever provide more than a portion of the ideas.

Some cartridge-makers have recently begun delving into the world of computer software in their quest for new games. The results have been mixed. Every game that plays beautifully on 48K on the Apple II or Atari 400/800 won't hold together when reduced to 4K or even 8K for the VCS. And some of the designers who've tried to switch from computer games to videogames have learned, to their sorrow, that writing games for one of the programmable systems isn't necessarily a piece of cake.

The appearance of a VCS-compatible Threshold first published by On-Line Systems for the Apple II about 18 months ago, shows that it can be done. The VCS version can't dim the luster of On-Line's magnificent disk, but it is a very creditable and entertaining piece of VCS software. It's a multi-wave invasion game that, like Centipede, allows some degree of vertical as well as horizontal movement. It can get pretty exciting when your ship is weaving among the attacks about one-third of the way up the screen.

There are two distinct types of difficulty adjustments. First, the player or players — two can alternate in

Continued on page 110





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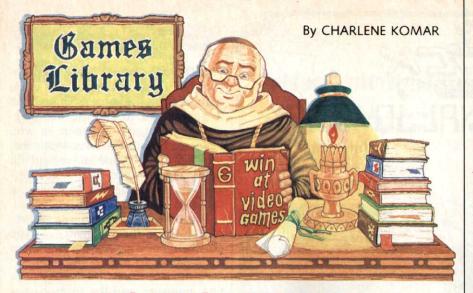
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"The Video Master's Guide to Defender"

Bantam Books has come up with an idea that's going to have a lot of publishers saying, "I wish I'd thought of that first!" The idea is for a series of books providing strategies for videogames, featuring similar, attractively designed covers and all working under the title, "The Video Master's Guide to..." So far, four volumes are scheduled, and undoubtedly more will appear if these are successful.

Unfortunately, this excellent idea has not been perfectly executed. "The Video Master's Guide to Defender" (Bantam, \$1.95), by Nick Broomis leaves a number of things to be desired.

Perhaps the main thing is organization. Have you ever had a friend try to explain a brand-new coin-op game you haven't yet seen? Maybe he was a little excited, because he really liked the game, and was interrupting himself a lot as he remembered different aspects of the game. And maybe you really didn't get all that good an idea of what the game was all about.

That experience is somewhat similar to this book. In its 79 pages, it hits all the important points about playing **Defender**, but all too often certain points seem thrown in out of nowhere, or explanations seem contradictory.

Admittedly, Defender is a complicated game that's a challenge to explain clearly. But a guide to a game, in effect, promises to explain that game clearly and coherently, regardless of how tough that may be. "The Video Master's Guide to Defender" just doesn't come through on that count.

The book does offer lots of illustrations. Some are almost too elementary,

but they may be helpful to those who really like to see what's happening when an action is explained. Another plus for the book is its enthusiasm; author Broomis is clearly enchanted with *Defender*, and communicates his sense of the "personalities" of each game element very nicely.

Unfortunately, enthusiasm doesn't excuse a generally poor book. One wonders on what other basis Broomis came to write this book.

The author is described on the cover as an "expert"—well, after all, the book is "The Video Master's Guide to Defender." But never is it stated just what makes him a master, or expert. There's no listing of his credentials. Is he a top scorer? If so, what's the best he's done? Is he simply a good player with an expert's grasp of the strategies and procedures involved? It just doesn't say.

Now, every game guide author doesn't have to be the best player in the world. An individual may be a top-notch player but unable to put down on paper in a clear and readable style how he does what he does. In that case, give me the talented writer who may be slow of reflex—but well aware of the best approaches to follow to rack up a high score—every time.

But if an author claims expert status, there should be some statement to back up the claim. With the current boom in videogames, a game reviewer's credibility, at the very least, is needed to protect gamers from those who seek a "how-to" book as a getrich-quick scheme and really know little or nothing about the game involved.

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THRESHOLD

Continued from page 107

Threshold — select the variation. Number three is the easiest, while number one's the hardest. Though this is guaranteed to confuse the plugand-play brigade — the folks who never read the instructions — this feature makes the game convenient for better players, since the toughest version will always be first up when the cartridge is initially inserted.

The other possible adjustment involves the difficulty switches. The attackers fire ordinary missiles when the switches are in the "easy" setting. Slide them to the hard difficulty position, however, and the space nasties fire missiles that make mid-course corrections so they can home in on your position.

The various aliens appear on the screen in groups of six. The first wave is worth 50 points each. This increases with each wave, though at first the rise is only 20 to 30 points per creature. A bonus gauge located in the lower left corner of the playfield counts down from 3,200 each time a new wave starts. When all six attackers are eliminated, the remaining points indicated by the gauge are added to the player's score. There is an additional bonus of 50 points per level, so you'll always get something for clearing the screen, even if it's just a token.

Scoring 20,000 points earns an extra ship for the player, though you can have no more than three in reserve at any time. A second bonus ship is awarded at the 40,000-point milestone. When the tally passes 40,000, the aliens automatically switch over to guided missiles.

Threshold is a strong entry from one of the field's relatively new companies. The ability to move the ship up and down as well as from side to side adds just the extra spark needed to make it a highly playable invasion game.

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Bargain Center, Memphis Game Peddler, Houston Irving Video, Irving Software Concepts, Houston

VIRGINIA

Big Picture, Arlington L & T TV Sales, Woodbridge Program Store, Vienna Video Express, Virginia What's Your Game, Fairfax

WASHINGTON

Games People Play, Poulsbo Video International, Seattle

WISCONSIN

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CANADA

K O Enterprises, Ltd., Oshawa

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nteraction between the readers and editors of Electronic Games helps make this a better magazine. The more we here at EG know about who you are and what you want to read, the better we can satisfy your needs and desires. That's why we run a Reader Poll in every single issue of this magazine. Rest assured that even though we protect the anonymity of every respondent to our survey, the editor personally reads each and every ballot received. And of course, this is also your ballot for casting your vote for the most popular videogames, computer game programs and coin-op arcade machines.

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THE PLAYERS GUIDE TO SCIENCE FICTION GAMES

Even Buck Rogers and Flash Gordon have to take a backseat to the folks who design electronic science fiction games. They mix hair-raising action, delicate strategy and special video effects straight out of "Star Wars" and "Close Encounters" to create what many armchair space rangers consider the ultimate in gaming thrills. EG's magazine-within-a-magazine will be devoted to a complete examination of the science fiction gaming phenomenon.

THE VIDEOGAME HALL OF FAME

Each year, our readers get a chance to choose which games are outstanding enough to merit election to the perpetual shrine of arcading, The Electronic Gaming Hall of Fame. Next issue, we'll call the roll on great games of the past — and give you a chance to select a couple of additional Hall of Famers!

SECRETS OF THE TRACBALL

Everyone's talking about tracball con-

trollers and the dimension they add to games like Missile Command, but do you know how a tracball works? If you're curious, catch the next issue of EG.

CHESS FOR ONE

Don't panic if you can't find someone

who knows the difference between check and castling, there are dozens of electronic chess-playing machines and programs ready to give you a bracing round of play. EG's annual review of electronic chess will help you find the right foe for solitaire sessions.

There'll be plenty of other exciting articles and features of interest to arcaders, plus these regular columns:





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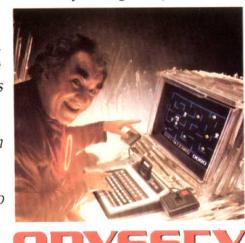
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