How to Beat Atari, Intellivision,
and Other Home Video Games

All the moves, explained and illustrated,
that will boost your scores for games
by Atari, Intellivision, Odyssey, Parker Brothers,
Imagic and Apollo, including:

Pac-Man	Space Chase	Grand Prix
Asteroids	Barnstormer	Freedom Fighters
The Empire	Chopper	K.C. Munchkin
Strikes Back	Command	and more!

By Michael Blanchet,
syndicated columnist and author
of the best-selling
How to Beat the Video Games

A Crabwalk Book Concept
These video games are all trademarked by their manufacturers.

How to Beat Atari, Intellivision and Other Home Video Games

MICHAEL BLANCHET

Illustrated by R. B. Backhaus

A CRABWALK BOOK CONCEPT

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PART I

Atari VCS Compatible Games

Introduction

Thanks to an aggressive advertising campaign and seemingly nonstop word-of-mouth praise, it is no surprise that Atari VCS is a runaway best-seller among home video game units. Just a few short years ago, this electronics monolith was relatively unknown. Today, "Atari" and "Home Video Game System" are considered interchangeable.

What's the big attraction of the VCS, you ask? Without a doubt it's the size of the system's library, the total number of game cartridges compatible with the system. Atari's own catalog of games presently includes forty-six titles, a list that promises to proliferate monthly, while Activision, the highly successful "splinter" software company currently offers sixteen original cartridges for use on Atari VCS, two of which are their latest efforts, *Chopper Command* and *Star Master*.

The software industry (software refers to game cartridges; hardware is game consoles, controllers, etc.) is now experiencing a swelling of its ranks. A new "software only" company seems to be forming each day. I suspect that the increased competition in this field will only improve the quality of the products. I'm sure though, that lots of junk will also find its way into the market, leaving the Atari VCS owner with many cartirdges to choose from—some good, some OK, some bad.

Of the new breed of game-cartridge companies, Imagic seems to be one of the most promising. Drawing on the proven abilities of former Atari and Mattel Electronics game designers, Imagic initially introduced three original

Atari-compatible games, two of which are discussed here. Imagic plans to have close to twelve games available shortly, including cartridges for use in the Intellivision System. Keep a lookout!

Board-game giant Parker Brothers entered the game race with its VCS rendition of *The Empire Strikes Back,* to be followed soon by *Frogger,* licensed from Gremlin Sega. They also plan to develop a series of *Star Wars*-based games, as well as VCS-compatible versions of coin-op arcade games, such as Stern's *Amidar* and *Super Cobra.*

Apollo, a Texas-based company hopes to have twelve Atari-compatible games on the market. Six are currently available, including *Lochjaw* (sharks, sea monsters, sunken treasure!), *Space Caverns, Lost Luggage* (hey, an original game topic!), *Racquetball, Skeet Shoot* and *Space Chase.*

That list doesn't even scratch the surface. A flood of Atari-compatible games will shortly be upon us. In the meantime, here are some strategy tips on some of the more popular, and soon-to-be-popular, Atari-compatible cartridges.

NORTH

WEST EAST

SOUTH

For the sake of convenience, I refer to the directions on the joystick as north, south, east, and west throughout the book.

Converting the Atari Joystick for Left Handed Use

What company in its right mind would market a left-handed joystick? Unsound market practice, for sure! Southpaws are in the minority.

Nevertheless, lefties who play home video games do exist, and more often than not they play with a handicap.

In this chapter are instructions for converting an Atari VCS joystick to suit the convenience of lefty gamers.

BROWN WIRE

WHITE WIRE

BLACK WIRE

BLUE WIRE

GREEN WIRE

ORANGE WIRE
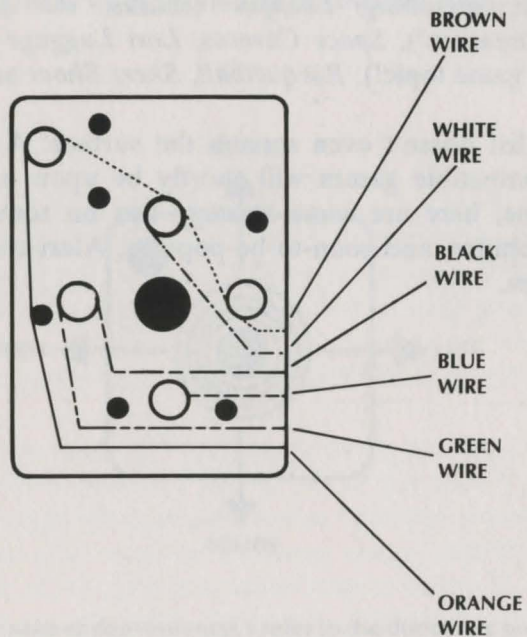
Upon removing the bottom panel of the joystick housing, you will see a plastic circuit board that resembles one of the two illustrations. Hold the joystick assembly so that the fire button is at the upper left.

With the circuit board facing you in this position, rotate the wires for each directional switch in a counterclockwise direction. Begin by unplugging the north-direction (white) wire. Then unplug the west-direction (green) wire and reinsert the white wire in its place. After unplugging the south-direction (blue) wire, reinsert the green wire there. The blue wire, in turn, is inserted in place of the east-direction (brown) wire. Finally, the east-direction (brown)

ORANGE WIRE

BROWN WIRE

WHITE WIRE

BLUE WIRE

GREEN WIRE

BLACK WIRE
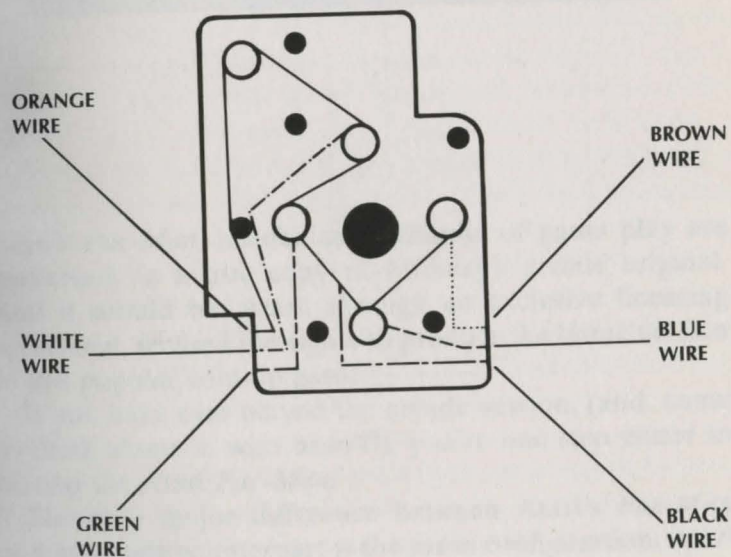
wire is connected to the vacant north-position from which the white wire was first removed.

After reassembling the housing at the bottom you will have one bona fide left-handed joystick. In use, the fire button should be at the upper right.

1.
Pac-Man
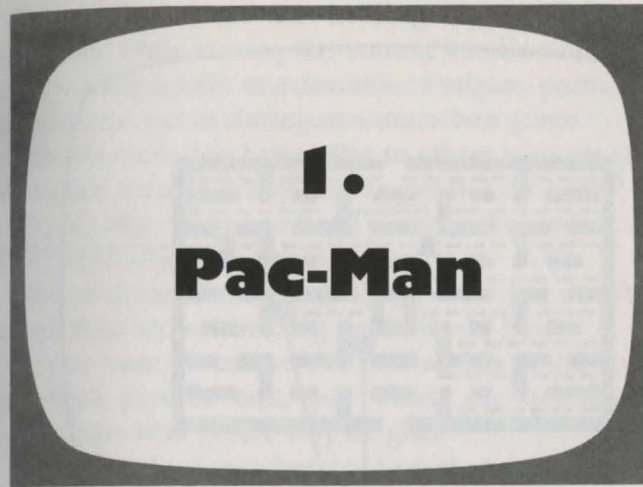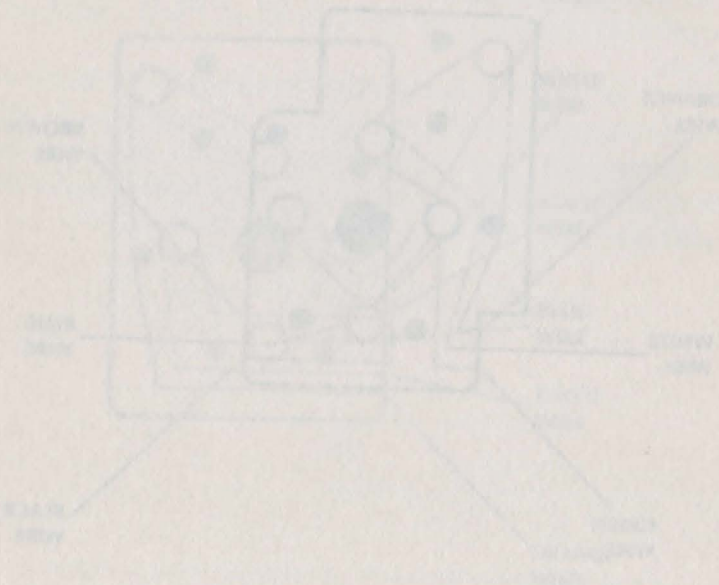
Atari's *Pac-Man,* insofar as mechanics of game play are concerned, is a true copy of Midway's arcade original. And it should be. Atari, through an exclusive licensing agreement, secured the rights to produce the home version of this popular coin-op game.

If you have ever played the arcade version, (and, come to think about it, who hasn't?), you're one step closer to besting the Atari *Pac-Man.*

The only major difference between Atari's *Pac-Man* and its arcade counterpart is the maze configuration. Atari has replaced the long straight corridors of the arcade version with a series of tricky alcoves, making quick, smooth turns a prerequisite for a good score.

POWER
PILL

PAC-MAN

MONSTERS
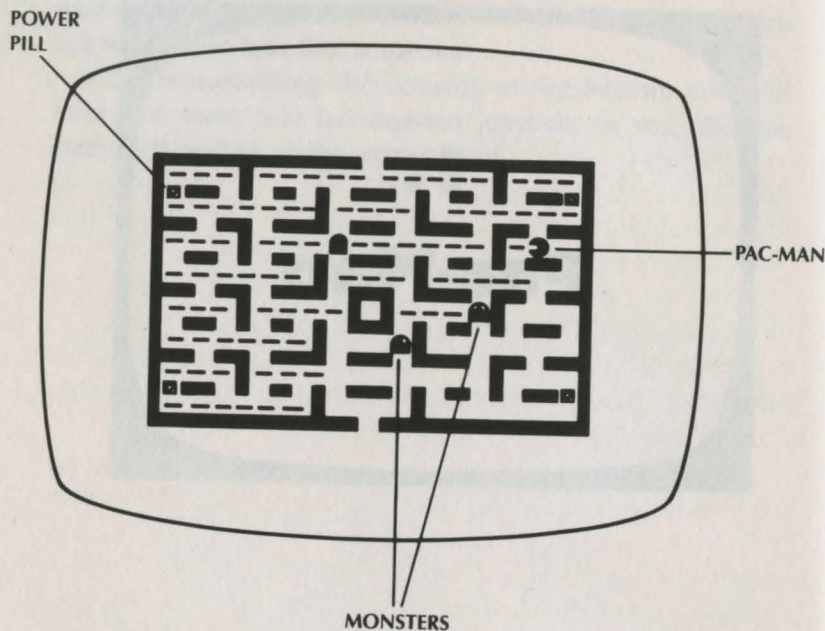
And it is in these tricky alcoves that the game is won and lost.

A refined and agile instrument the Atari joystick is not. Sure, it works well in a game such as *Space Invaders,* since left or right movements are all that are necessary. But I'm sure I am not alone when I say I found the Atari joystick somewhat less than responsive when I played *Pac-Man.* After many hours of maneuvering through the alleyways of "mazeland," though, I discovered some techniques on the handling of the joystick that drastically reduced hand fatigue and improved my score.

Personally, I found that holding the joystick housing in one hand, while moving the control handle with the other, is only temporarily comfortable. Fatigue, particularly in the forearm, set in during any marathon game.

The best solution I can offer to others who are susceptible to this malady is to place the joystick on a level surface while playing, using one hand to move the joystick and the other to steady the unit's housing.

The innards of the joystick are such that a soft touch, rather than an overbearing hand, works best.

If you were to remove the four screws at the bottom of the Atari joystick unit, you would see first-hand what makes *Pac-Man* go the way he goes.

Inside are four switches positioned at north, south, east and west, that rest on a plastic circuit board. The contact point of each directional switch is actually a slightly arched metal bump. When the joystick is pushed, pulled or otherwise manipulated, a small plastic protrusion on the bottom depresses the appropriate switch. When pressure is released, the "bump switch" flexes back to its original, open position.

Undue force when handling the joystick has two negative side effects. First, it will slow your reaction time when shifting from one direction to another. Second, in the long run, abuse may cause the "bump switches" to lose their resilience, either partially or completely.

Simply tapping the joystick in any of the four directions will send Pac-Man on his way. Since the monsters require no human assistance in their pursuit, they are considerably more graceful than Pac-Man is when negotiating the tricky turns of the maze. To maintain a steady pace and to avoid possible hesitation or delay, you should initiate a

turn before you come to it. In other words, turn before you get there.

Assuming that your Pac-Man is heading east along a corridor, he will continue in that direction until he either strikes a wall or is directed to do otherwise. If you want him to make a turn either north or south, move the joystick appropriately before the turn comes up. When Pac-Man is offered the opportunity to turn in the direction you have selected, he will do so without hesitation or a break in stride.

Game Play

After the reset button is depressed, the game will begin. Initially you are granted four game lives and subsequently awarded an additional Pac-Man for munching through a complete maze.

The object of the game, for those unknowing of the ways of "mazeland," is to clear away all of the dots in the maze while avoiding collision with any of the four monsters that patrol the hallways.

Pac-Man does not have to spend all of his time running scared. Located in the four corners of the maze are power capsules that, once consumed, put Pac-Man on the offensive. Temporarily. After Pac-Man swallows a power pill, the tenacious quartet transmute—very subtly, mind you— to a lighter shade of translucent whitish yellow. In this form, Pac-Man can consume the monsters for bonus points which are awarded on a doubling basis (20 points for one, 40 for two, 80 for three and 160 for the fourth). The eyes of a freshly slain monster will then scurry back to

the monster pen and shortly re-emerge, attached to a pristine body.

So how do you get a decent score?

First, observe the ways the monsters move. More often than not, a monster at a crossroads quickly decides what the most direct route to Pac-Man may be. Once he makes up his mind, he will not change it. He moves relentlessly toward you until it is time to make another decision. Put simply, no monster will reverse and retrace steps just taken. This "commitment to commitment" is the monster's calamitous flaw and a weakness you can exploit.

Don't be afraid to wait for a monster to make up his mind before you do. By waiting for a monster's reaction, you allow yourself more time to make an intelligent decision as to where it would be most advantageous to move. And it keeps them guessing!

In theory, it is best to clear off the majority of the dots before having dessert, i.e., power pills.

I suggest attacking the tricky alcoves that run along the left and right sides of the maze first, while the monsters are busy trying to get a bearing on you.

Once the bulk of the maze is clean, bait the monsters toward the energizers.

A common practice among arcade *Pac-Man* aficionados is "perching"—the technique of waiting patiently near an energizer for the rush of oncoming monsters. I would discourage this on Atari's *Pac-Man* for two reasons: First, the Atari joystick is not as lithe as its Midway counterpart. Consequently, the split second between the instant you move the joystick and the moment Pac-Man moves could be the difference between reaching the energizer in time and getting snagged millimeters short.

To be energized, Pac-Man must consume the entire energizer. This, coupled with the fact that the monsters need merely brush Pac-Man to deflate him leaves little margin for error. Be careful!

Due to inconsistencies among TV sets, the change in tone between an aggressive monster and a vulnerable one may be hard to detect. Generally, the difference is a little easier to spot on black-and-white TV. If you encounter this problem, listen for the jingle that sounds after an energizer is eaten. Its completion is a signal that the monsters are about to revert to their original, dangerous state.

2.
Asteroids
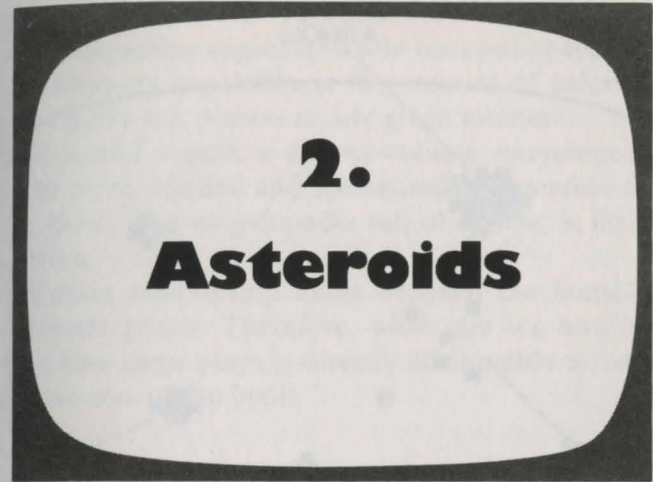
Though similar in appearance, the Atari VCS version of *Asteroids* and its arcade counterpart have differences arising from the capabilities of the hardware employed.

If you've played the coin-op *Asteroids,* it is safe to say that you understand the play principle of the home version.

The chief differences and subsequent new challenges arise from the limitation of memory and the lack of joystick agility in the home system.

A joystick controller is used in VCS *Asteroids* instead of the array of buttons utilized in the arcade version. Handling the control stick is the first, and probably the biggest, hurdle to be cleared along the road to its mastery.

To initiate clockwise or counterclockwise rotation, the joystick must be moved either east or west. Once a flight

LARGE
ASTEROID

YOUR SHIP

UFO

hand, performs a similar function, but does not possess the memory capability engineered into the costlier arcade machine. Memory capability is the amount of information the computer can possess at any given moment.

You would expect a twenty-volume encyclopedia to provide more detailed and specialized information than a single book. The encyclopedia set, of course, is far more expensive.

A similar relationship exists between the home-video and arcade games. Therefore, what you see and how a home video game plays is directly attributable to, say, the "size and cost of the book."
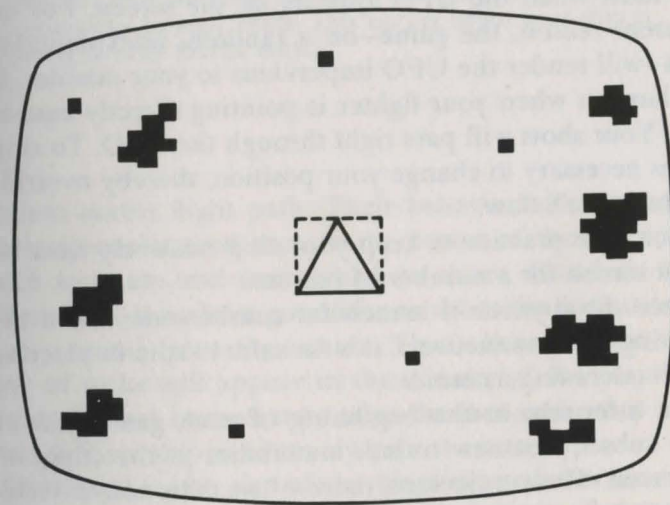
In *Asteroids,* the computer defines your ship as the area shown by the dotted lines, not just the triangle.

course is chosen, your ship will thrust in the desired heading by pushing the joystick northward. There are three special functions on the *Asteroids* cartridge, namely, Hyperspace, Shields and Flip. These are activated by pulling the joystick toward you (south).

Each time the red button is depressed, a salvo consisting of two missiles is released from your ship.

To better understand the idiosyncrasies of VCS *Asteroids,* some technical explanation is in order.

A typical arcade game is actually a very specialized computer, programmed to execute a complex series of commands. The home video game system, on the other

Nevertheless, the engineers at Atari did a laudable job bringing *Asteriods* to the home medium. The lack of "work space," however, led to quirks in the program that could directly affect performance.

At a glance, your ship appears to be a white triangular vessel. Under closer inspection, you will discover that the computer defines your ship as a square that is somewhat larger than the white triangle the graphics depicts as your fighter. Stated simply, your ship occupies more area than is apparent to the eye. What may appear to be a close call with an oncoming asteroid may very well turn out to be a fatal collision if the rock brushes the area of the darkened square. Condition yourself to account for the "invisible" part of your ship when maneuvering among the asteroids.

Another program idiosyncrasy will occasionally manifest itself when the UFO appears on the screen. For no apparent reason, the game—on a random, unexplainable basis—will render the UFO impervious to your missiles. It will happen when your fighter is pointing directly east or west. Your shots will pass right through the UFO. To stop it, it is necessary to change your position, thereby overriding the game's flaw.

It's a wise practice to keep your ship relatively close to center screen for a number of reasons.

Since the joystick is somewhat cumbersome when attempting tricky maneuvers, it is far safer to spin in place to aim at oncoming asteroids.

The asteroids, at the beginning of each game and at every subsequent new round, materialize at the edges of the screen. Their trajectory, more often than not, is vertical. It is rare that any asteroid (save for a few small fragments) deviate drastically from their north-to-south (or
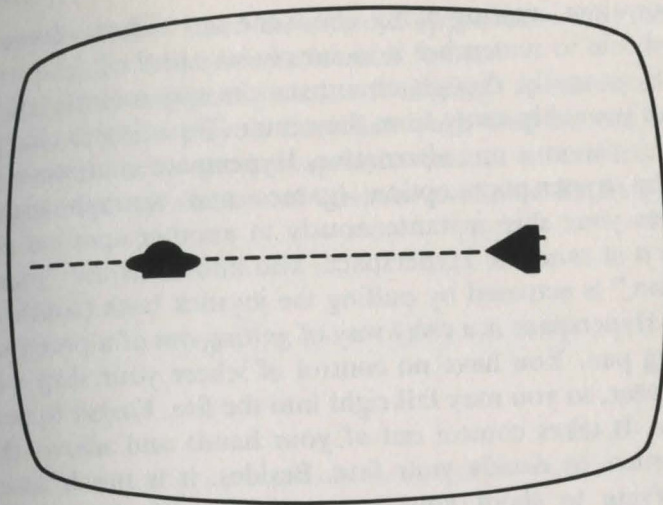
Due to a program flaw, the UFO will occasionally become impervious to your shots. This occurs when your ship is facing directly East or West.

south-to-north) flight path. Their behavior affords you a relatively uncluttered area in the center of the screen in which to rotate and from which to shoot. Based on this information, it is also a good idea to shoot the last asteroid in any round from the center. That's because the next wave of rocks will appear in the vicinity of the playfield borders almost immediately after the last asteroid is pulverized. Your ship is relatively safe at center.

Compared to the size of the playfield and the area occupied by the asteroids, your fighter is somewhat large. This distortion of proportion significantly reduces your re-

action time, making flying about the screen hazardous. A good rule to remember is to simply stay put!

Occasionally, though, circumstances may require you to move your ship away from the center. Thrusting to change your location is one alternative. Hyperspace is another.

The hyperspace option (games one through eight) moves your ship instantaneously to another spot on the screen at random. Hyperspace, also known as the "panic button," is actuated by pulling the joystick back (south).

Hyperspace is a risky way of getting out of a potential frying pan. You have no control of where your ship will reappear, so you may fall right into the fire. Forget hyperspace. It takes control out of your hands and allows the computer to decide your fate. Besides, it is much more gratifying to shoot your way out of a life-threatening situation.

In games nine through sixteen the "shields" option is offered in lieu of hyperspace. This feature, if used correctly, is an excellent defensive tool that will permit you to hold your ground.

When the control handle is pulled back, your ship is effectively cloaked with an indestructible shield which will last from two to three seconds. Asteroids will pass right through your ship when shields are up. Timing is critical. Once the shields disappear, a mandatory brief moment must elapse before they can be implemented again.

Your ship is incapable of moving or firing when covered by shields. Experiment with the shields to determine exactly how long they are effective.

The "flip" feature (games 17–24) is also activated by pulling back on the joystick. It serves as a quick means of executing a 180° turn in place, but its strategic advantage is apparent only when an asteroid approaches the rear of your ship. Its effectiveness is quite limited.

The point-mongering tactic of "lurking" (a staple of the arcade *Asteroid* player) does not work well on the VCS rendition, due to the unresponsive nature of the controls and the limited amount of airspace available for flying.

3.
The Empire Strikes Back

Parker Brothers, a leader in the board-game industry for almost a hundred years, has entered the home video game software market with *The Empire Strikes Back*, the first of a series of *Star Wars*-type games, that has "hit" written all over it. This game recreates the battle scene on the Ice Planet of Hoth, where rebel forces are pitted against a detachment of Imperial Walkers.

The player's objective is to stave off the relentless march of the Walkers toward the power generators.

The battlefield spans the width of eight TV screens. The power generators you have been entrusted to defend are on the far right of the screen. The Walkers will lumber toward them from the far left.

To ward off the Walkers' assault, your Snow Speeder must make forty-eight hits on the body of any one Walker. With each eight hits, the Walker will weaken by one stage. This fluctuation in your adversary's condition is indicated by a color change.

An unscathed Walker is shaded black. After the first eight hits, he will turn gray, then blue, purple, red and yellow. With the forty-eighth hit, the Walker will disintegrate.

With each color change, the Walker will progressively develop poorer accuracy. A damaged Walker also fires less and moves more slowly.
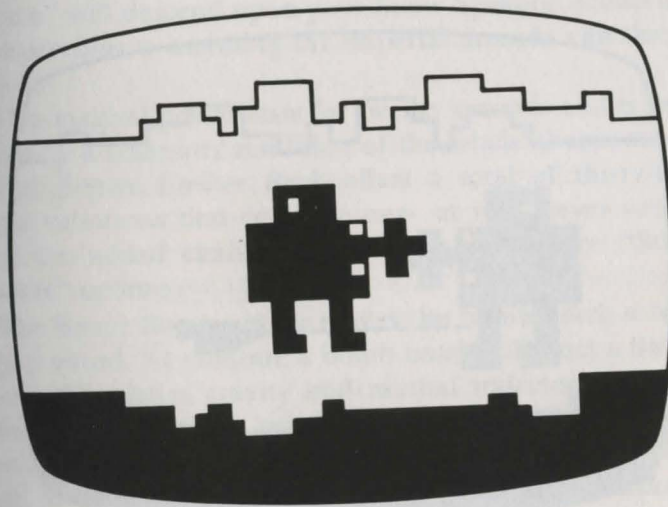
Bomb Hatches will appear on the Walker in one of the places shown by the white squares. Only one bomb hatch in one position will appear at one time.

To hasten a Walker's demise, one well-placed shot on a "bomb hatch" can destroy your adversary in less than the required forty-eight shots.

Bomb hatches are the flashing discolored areas that appear intermittently on a damaged Walker. These vulnerable spots will appear either above or below the Walker's head or on its back. When a bomb hatch is hit by your Snow Speeder's laser blast, it's all over for the Walker.

At any given moment, you will be faced with five Walkers. Any Walker that you succeed in destroying is automatically replaced by a fresh opponent. The reserve Walker will take his place at the rear of the advancing column.

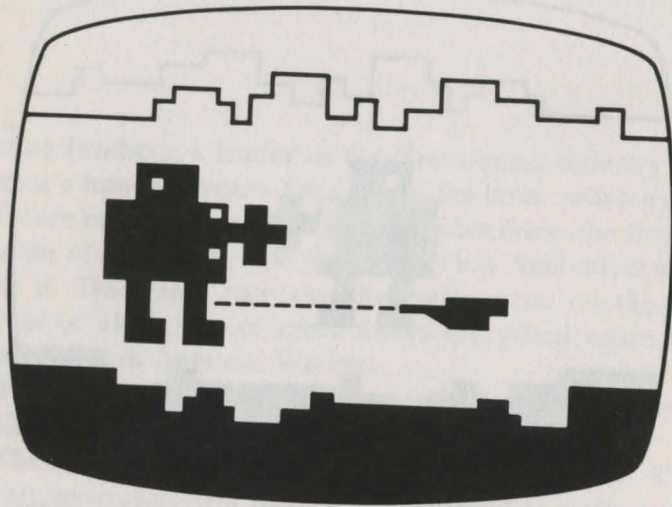Your Snow Speeder, like a Walker, can sustain multiple

Hitting the Walker's legs has no effect on your adversary.

blows before it is annihilated. Once struck by a Walker's missile, your Snow Speeder is classified as damaged. The general rule is that any Snow Speeder can absorb five hits before it goes down for good. There are exceptions to this condition, however, to be discussed later.

One of the unique features of *The Empire Strikes Back* is the repair mode.

Small valleys dot the length of the battlefields' surface, each of which serves as a service station of sorts. To revert a wounded Snow Speeder to pristine condition, simply land your craft in a valley and hold it motionless. Within seconds a "beep" will signal that fighter repairs have been completed. Each of your five alloted Snow Speeders can be repaired twice.

When two minutes of game time have elapsed, the "Force" will descend upon your Snow Speeder, rendering it impervious to anything the imperial armada can throw at you.

This magical power lasts for twenty seconds and is preceded by a computer rendition of the rebels' theme song.

The Empire Strikes Back offers a total of thirty-two game variations that combine one- or two-player action with the added challenge of "Smart Bomb" or "Solid Walker" options.

The Smart Bomb option makes the bomb hatch a two-edged sword. At random, a bomb hatch will eject a Smart Bomb that defies gravity and normal trajectory, characteristic of a Walker's missile. Smart Bombs tenaciously track your Speeders. A Smart Bomb continues its pursuit until it is shot down or runs out of steam, eventually disappearing.

The Solid Walker option makes the airspace occupied

by the Walker's body off limits to your Snow Speeder. You can, however, still navigate through the legs of your imperial foe. Crashing into a Solid Walker will destroy your fighter. At the same time the Walker is damaged to an extent equivalent to twenty-four shots (three color changes).

In *The Empire Strikes Back,* players use the joystick controls. The north and south directions dictate altitude, while east and west move the Snow Speeder in the appropriate direction. As you hold the joystick in any one direction, thrust builds up. To stop or slow down, move the control handle in the direction opposite to that in which your craft is presently heading.

One word of warning. Under full steam, your Snow Speeder builds up a considerable amount of thrust. It requires a proportionate amount of time, airspace, and counter-thrust to slow down or change direction. This is important to remember when engaged in battle with Solid Walkers.

Running along the bottom of the screen is the radar band. It allows you to see the position of all five Walkers in relation to the power generator as well as your Snow Speeders.

On the scanner, Walkers are depicted by small dots. The cross hairs represent the location of your ships.

Strategy:

The most important strategy tip I can offer for *The Empire Strikes Back* is based on the fact that *no* Walker will ever pass another. In fact, the lead Walker's speed directly regulates the speed of the remaining four.

Each legion of five Walkers is faster and progressively more deadly than the group it replaced.

To apply the brakes on the whole parade, batter the

lead Walker, but be careful not to destroy it. Move past the wounded front Walker and proceed to do the same to the rear Walker.

By doing this, you accomplish two objectives: you slow down the advancing column, along with the reserve Walkers that will appear at the rear.

Now move to the middle Walkers and destroy them in order.

Always keep an eye on the lead Walker. Even though he is moving at a reduced speed, he will eventually reach the power generator.

There is no limit on the number of reserve Walkers. As long as you have extra Speeders, the game continues.

As soon as the damaged lead Walker is knocked off (assuming the three middle Walkers have been destroyed), the rear Walker takes the front position. Move to the rear of the pack to damage the last Walker.

Repeat this process of "buying time" for the balance of the game.

There are two separate strategies to use when engaged in a confrontation with a Walker. If you only wish to damage your foe, remain motionless to draw his fire. As the missile approaches your ship, change altitude and fire from a safer position. When a bomb hatch or a damaged Walker appears, be careful not to strike him if you only wish to slow him down.

Position your ship level with the Walker's head and depress the fire button. The constant stream of fire will accomplish two things and garner some extra points in the process.

First of all, each shot will serve to weaken the Walkers. Second, your laser blasts will be clear of any bomb hatch that may appear.

Since the Walker's retaliatory missiles are shot from his head, each missile he fires will be met head-on by one of your own. Striking down a missile in flight awards ten points.

As the Walker draws nearer, back up and resume your original position.

When confronted by a Walker you wish to destroy, use the same motionless attack plan. When a bomb hatch materializes, change altitude accordingly and fire at it.

Be on your toes when you deviate from the head-on position. The Walker's missiles will now approach your Snow Speeder from an angle, making the chances of striking it down in mid-flight almost impossible.

Another way of getting a few clean shots at a bomb hatch involves moving your fighter to a position away from the vulnerable area. Once you draw his fire, drop (or rise) to the level of the bomb hatch and open fire.

I have found the "motionless" attack plan effective for a number of reasons.

A Snow Speeder under full thrust is a bit difficult to maneuver accurately, especially when your battle plan requires constant shifts in direction, speed and altitude.

By remaining still, the Walker will react first according to your position. An intelligent defensive reaction is easier to make once the Walker has committed itself. *The Empire Strikes Back* is a game of "wait, fake and jab."

A carefully planned attack is most important when dueling with Solid Walkers.

Remember that your ship cannot make contact with the Walker's body without being destroyed.

If you are stuck in a desperate situation, you can trade off a Snow Speeder for a Walker that is damaged at least three colors' worth.

Any Walker that is purple, red or yellow will be destroyed as a result of a crash.

Since Solid Walkers pose the threat of certain destruction by contact, I again recommend the motionless-assault strategy.

If you are playing with the Smart Bomb option, don't get too comfortable staying in one place. A Smart Bomb tracks your ship with intent to kill.

Smart Bombs, however, have a tendency to move in slowly reducing circular paths.

When they first emerge, a Smart Bomb may very well fly right past you, only to turn around, once it has you in its sights.

Take advantage of its initial stupidity by flying toward it as it emerges and then quickly turning around before it comes back after you. Hang motionless, all the while firing. If you miss it on its first pass, quickly move away from the Walker and turn around to ready yourself for its second sweep at your Speeder.

Smart Bombs will either damage or destroy your craft, depending on the number of blows your Speeder has already sustained. Even the repercussion of a Smart Bomb hitting one of your missiles may damage the craft.

If you are using the Smart Bomb option, make it a practice to repair your ships right after the first hit. This will improve your chances of surviving a Smart Bomb blast.

If this seems like a paranoid strategy, think again. If the "Force" descends on your Speeder after you have used up both pit stops, you may now repair your ship two additional times, a total of four repairs per ship.

4.
Space Chase

Space Chase is best described as a game of the "laser-base" genre.

One characteristic that sets *Space Chase* apart from others in that group is the free mobility the player's ship has to move, not only horizontally, but to some extent, vertically.

Vertical movement is confined to the bottom third of the screen, a unique twist first seen in Atari's *Centipede* coin-operated game.

Space Chase offers twenty-four game options, all of which combine either one- or two-player capabilities with varying degrees of difficulty. Games one through twelve are "daytime" battles while games thirteen through

twenty-four are referred to as "nightime" battles. When you come right down to it, the only detectable difference between a nightime battle and its daytime counterpart is the color of the objects on the screen.

The difference between the three difficulty levels (appropriately called Level One, Two and Three) is the number of hostile ships you face per wave, along with the point value each carries.

Your fighter retaliates with missiles that are capable of destroying not only enemy craft, but their descending bombs as well.

In an attempt to hasten the end of the battle, your foes will unleash what are called laser-directed heat-seeking proton missiles.

ENEMY SHIP

YOUR SHIP
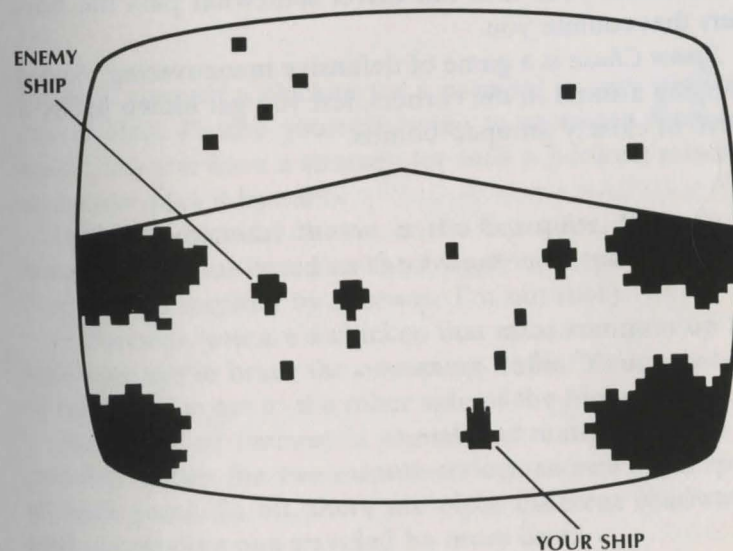
At first, the heat-seeking missiles may be difficult to detect. Their flight is preceded by a beep that is inconsistent with the usual background noises the game emits. Your best defense against these semi-invisible menaces is to get out of their way, or to shoot them in mid-flight.

The scrolling backdrop is quite deceptive, as is the upward mobility your ship possesses.

When your ship is flying at maximum altitude, it seems that the bombs dropped by opponents closest to you fly almost unseen.

Strategically speaking, there is no necessity or advantage in moving your ship up in the vertical direction. My advice is to play "back," thereby increasing your reaction time.

As you will eventually find out, your horizontal range does not span the entire width of the playfield. On the other hand, your foes can travel somewhat past the borders that confine you.

Space Chase is a game of defensive maneuvering. Avoid hanging around in the corners, lest you get blown up by a salvo of closely grouped bombs.

5.
Freeway

Imagine yourself a chicken for a moment, a very resilient one at that. Picture yourself trying to cross ten lanes of traffic. Do you have a strategy for such a perilous mission or do you play it by ear?

This semi-comical theme is the basis for *Freeway*, a home video game based on the *Frogger* concept (or maybe *Frogger* was inspired by *Freeway*, I'm not sure).

In *Freeway*, you are a chicken that must summon up all your courage to brave the oncoming traffic. Your mission, of course, is to get to the other side of the highway.

The object of *Freeway* is to make as many crossings as possible within the two-minute sixteen-second time span of each game. In all, there are eight different roadways, each succeeding one traveled by more cars.
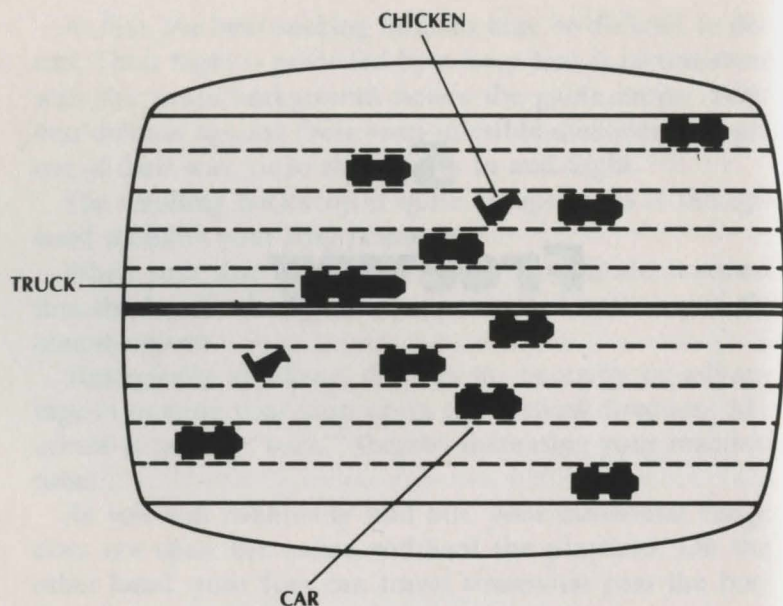
Games five through eight on *Freeway* are the exceptions of the group.

The traffic in each of the first five games moves at constant speed. In the last three games, each vehicle will accelerate and decelerate at random.

Chickens are capable of north-south movement only.

If struck by a car, your chicken is sent back one lane (assuming the difficulty switch is set on "B"). With the difficulty switch in the "A" position, impact sends your feathered friend back to the starting line. After the mandatory post-accident setback, your chicken is unable to move for a split second. During the game, it seems like an eternity.

Is there a strategy for *Freeway?* There is, but a bit of observation is in order first.

Before running out across the road, start the game and watch the traffic flow.

Since any car exiting the screen reappears at the opposite side, definite patterns exist for the first five games. Just watch without playing and the rhythm of each lane will soon be evident to you.

And remember, don't be afraid to take a step back. Far better to do it yourself than to be put back because you've been run over!
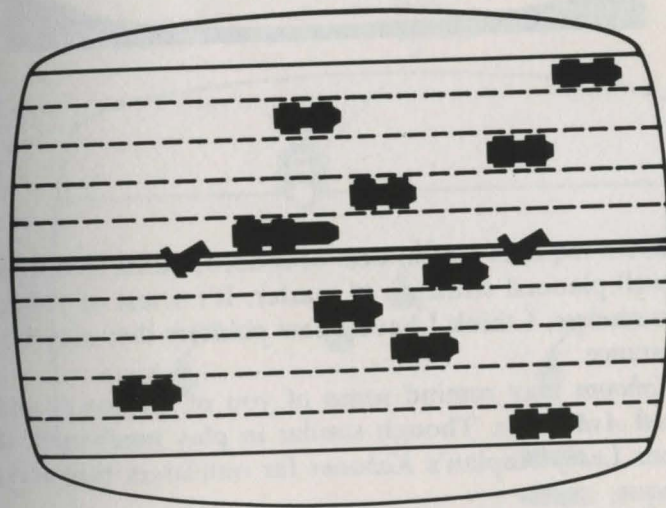
The center median in *Freeway* is not a safe place for your chicken to hide.

6. Kaboom

Kaboom requires a great deal of concentration, as opposed to well-planned strategy, to master. It's a test of reflexes. Nonetheless, I think I have a few pointers that may be of assistance.

Kaboom may remind some of you of an arcade oldie called *Avalanche*. Though similar in play mechanics, designer Larry Kaplan's *Kaboom* far outclasses this arcade antique.

In *Kaboom,* you control a stack of three water buckets that move right or left. Above the pails lurks the Mad Bomber, whose function it is to dart back and forth across the top of the playfield, dropping a predestined number of bombs. Your part is easy enough. Simply guide the stack

of buckets under each plummeting bomb before it hits bottom.

If any bomb strikes the bottom of the screen, *every* bomb on the playfield will explode. Each time a bomb is missed, the lowermost bucket is taken away. But a missing bucket is replaced each time you surpass a 1,000-point mark (2,000, 3,000, 4,000, etc.).

The Bomber's onslaught increases in bomb quantity and speed as the game progresses.

These graduations are evident with each succession of bombs. In all, there are eight groups.

MAD BOMBER

BOMB

WATER BUCKETS
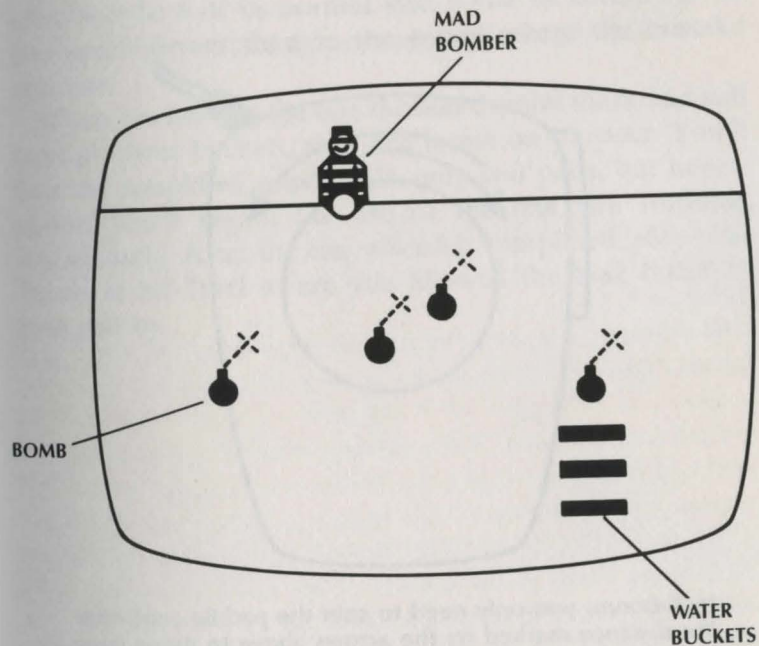
The paddle-wheel controller is used to manipulate your column of buckets. It is not necessary to turn the wheel a full rotation to the stopping point to get the buckets to slide over to the edge of the screen. Actually, only one half of the disk's total range is needed to move them from one end of the screen to the other.

Before starting the game, experiment with the controller to find out exactly how far the dial should be moved to get the desired action and then stay within this range throughout the game. By doing this, you can eliminate the "play" in the paddle wheel that may slow your buckets.

In *Kaboom*, you only need to spin the paddle controller the distance marked by the arrows above to move your buckets to either end of the screen.

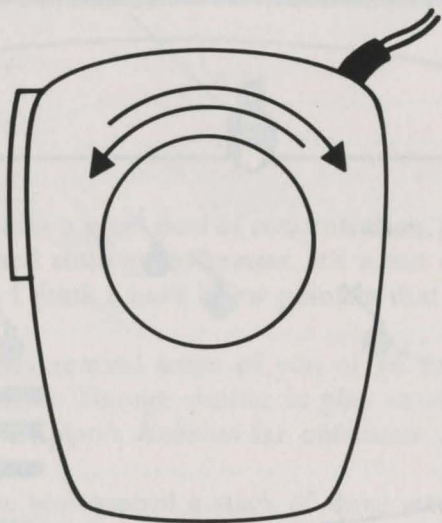Train your eyes to watch the area just above the bucket stack. Mimicking the movements of the Mad Bombers can be counterproductive, particularly in later stages of the game. Even though he zips about in any one direction, he may or may not drop bombs. By focusing on the lower middle segment of the screen, the buckets will nearly always be where the bombs are.

As you near a 1,000-point interval, you can implement a proven strategy that yields extra points and, at the same time, affords you a breather.

Each time a bomb is missed, play continues on the preceding round of the one where the mishap occurred. The salvo will be half its normal size, while its speed will be one notch slower than in the round where the mistake occurred.

If you are nearing the one thousand-point mark and still have all three buckets, miss one bomb on purpose. You'll face the simplified round with only two pails, but nevertheless you'll regain the use of the one you forfeited immediately. After the easy round is completed, play continues at the level where you allowed the lone bomb to pass you by.

7. Barnstorming

The beauty of Activision's game cartridge is that there is no compromise in the sophistication and authenticity departments.

A perfect example of this is *Barnstorming*, the first Activision game engineered by rookie designer Steve Cartwright.

To the uninitiated, *Barnstorming* puts you in the cockpit of a biplane. Your flight, by today's standards, is quite a harrowing experience. The object of each of the four games on the cartridge is to fly through a predetermined number of barns while avoiding the towering windmills and pesky flocks of geese that may get in your way.

Judicious navigation alone is not enough. *Barnstorming* is a race against time.

Each time you glide through a barn, the figure that appears above the elapsed time clock decreases by one. This is the barn count number. When a barn is passed over, this figure remains unchanged. The catch is that for each barn passed, your biplane must fly farther to reach another. The journey is complete when the prescribed number of barns have been passed through.

Games one through three—namely, Hedge Hopper, Crop Duster and Stunt Pilot—are fixed courses. Assuming that each barn that appears is flown through, the windmills and barns will appear in the same order from game to game. Memorization of these patterns will give you the edge necessary for an accident-free flight. More on these later.
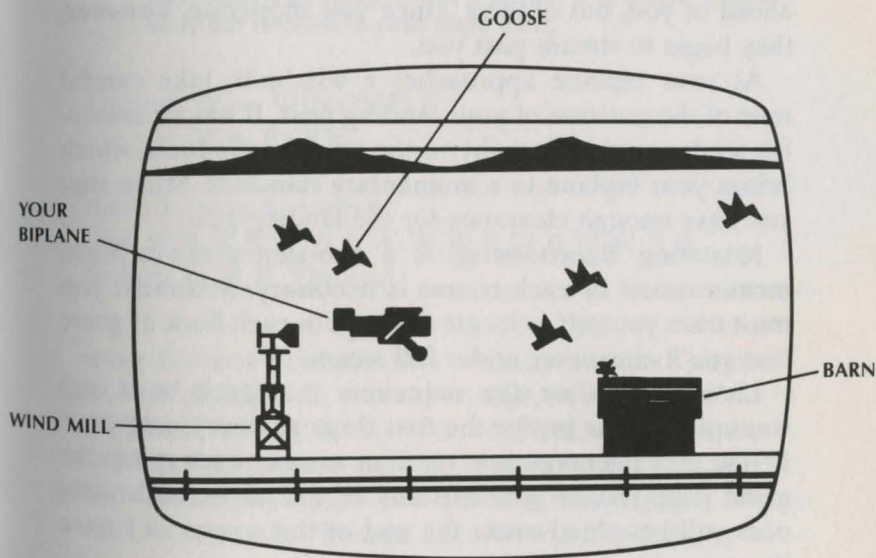
The joystick controller is used to adjust altitude, while the red button serves as the accelerator. Once the biplane is airborne, it is not necessary to depress the red button constantly, since the plane idles sufficiently to prevent stalling out.

In theory, the quickest route is one where all collisions are avoided and the fewest altitude adjustments are made.

Striking a windmill, barn roof, weathervane or goose will slow your biplane down. Hitting one of the stationary objects will bring your biplane to a temporary, but complete, stop. Geese, on the other hand, will reduce your speed only partially when hit; upon impact, they bounce forward.

Geese fly slightly slower than your biplane does at full thrust. When you cruise at idle speed, the flock remains ahead of you, out of view. Once you accelerate, however, they begin to stream past you.

As your biplane approaches a windmill, take careful note of the position of your landing gear. It has an annoying tendency to get caught on the top of a windmill, which brings your biplane to a momentary standstill. Make sure you have enough clearance for the landing gear.

Mastering *Barnstorming* is a two-step process. First, memorization of each course is necessary. Secondly, you must train yourself to locate the gaps in each flock of geese that you'll encounter under full steam.

Listed below are the sequences that each barn and windmill appear in, for the first three games. Game four, Flying Ace, generates a random course each time the game is played. If you skip any of the barns, additional ones will be added on at the end of the course as I have them listed here.
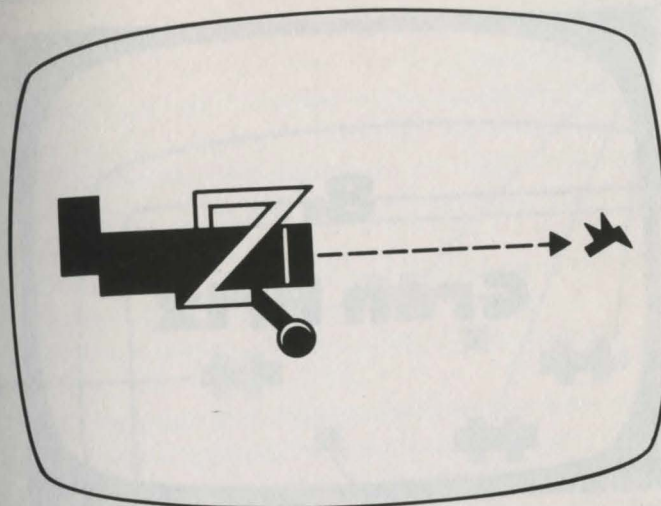
Each time your biplane hits a goose, it is simply pushed away but remains in your flight path.

Legend: W = WINDMILL
B = BARN

GAME 1—HEDGE HOPPER:
W,B,W,B,W,B,W,W,B,W,W,W,B,W,B,W,W,B,B,
W,B,W,W,W,B. The end.

GAME 2—CROP DUSTER:
W,W,W,B,B,B,W,B,
W,B,W,B,W,W,W,B,
W,W,W,B,W,W,W,W,
W,W,B,B,W,W,W,B,
W,B,W,B,W,B,B. The end.

GAME 3—STUNT PILOT:
B,B,W,W,B,B,W,
W,W,B,W,W,W,B,W,
W,W,W,B,B,W,B,W,
W,B,B,W,W,B,W,
W,W,B,W,W,W,B,
W,W,W,B. The end.

8.
Gran Prix

GAME
CONTROLLED
CARS

YOUR CAR

OIL SLICK

Activision's *Gran Prix* is probably the best "racing car" game available for home game systems today.

This game, to say the least, is quite realistic. The Formula One racers actually look and behave like real cars.

Your performance is not shown by a point value, but by a digital stopwatch that reads out to one hundredth of a second.

Gran Prix can only be played by one person at a time. The object of each of the four games on the cartridge is to reach the finish line in the shortest possible time.

The joystick controller acts as your steering wheel as well as your brakes, while the red button serves as the accelerator pedal.
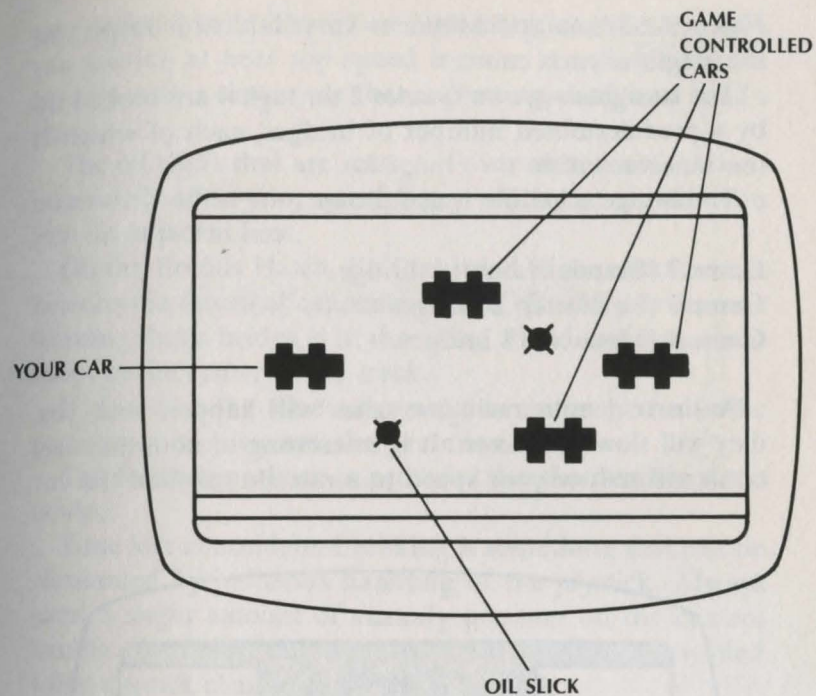
Since there are no turns on the course, you need only concern yourself with choosing which of the four lanes your racer will occupy.

Pushing up on the joystick (north) moves your car to the top of the screen, while (you guessed it) pulling the control handle toward you (south) brings the car to the bottom. Braking is accomplished by moving the control handle to the left (west). A reduction in speed will also be realized if you release the red accelerator button momentarily.

The four games on the cartridge—Watkins Glen, Brands

Hatch, Le Mans and Monaco—vary only with respect to the length of each course.

The straightaways on Games 2 through 4 are broken up by a predetermined number of bridges, each of which is two lanes in width.

The bridge schedule is as follows:

Game 2 (Brands Hatch): 1 bridge
Game 3 (Le Mans): 2 bridges
Game 4 (Monaco): 3 bridges.

As in real auto racing, crashes will happen and, yes, they will slow you down. It is interesting to note that any crash will reduce your speed to a rate slower than the car
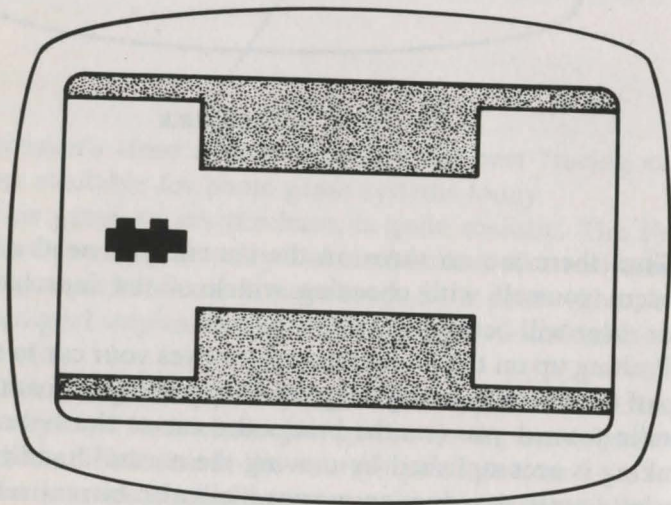
Each bridge in *Gran Prix* is less than half as wide as the track itself is.

you collided with. Therefore, slamming into the rear of a car moving at near top speed is more acceptable than a mishap with a slower car that is plowing along at a snail's pace.

The oil slicks that are scattered over each course do not necessarily affect your speed. They will, however, shift you into an adjacent lane.

On the Brands Hatch, Le Mans and Monaco courses, a heavier-than-normal concentration of oil slicks serves as a warning that a bridge is in the offing. Heed this signal and move to the center of the track.

If you take the time to commit to memory the traffic patterns of each course, the game is a snap.

The following advice is provided for the benefit of the novice:

Time lost to accidental braking is something that can be eliminated by judicious handling of the joystick. Always exert a slight amount of easterly pressure on the control handle. By doing this, unintentional braking is avoided when a quick change of direction is made.

As your speed picks up, steering response increases proportionately. At high speed, tapping the joystick is all that is needed to move from lane to lane. Each time an adjustment is made, time is lost.

With the exception of the bridges, each course measures four lanes in width.

Speed is not affected by driving beside the inside or outside walls. Grazing the side of a bridge, however, will slow you down.

Remember that the race is in front of you. I think it is safe to forget about a car that you have passed. I have never seen a computer-control car strike the rear of a players' car.

9.
Star Master

Star Master, by definition, is a first-person game that utilizes some innovative features. For those unfamiliar with the term "first-person game," here is an explanation.

Most games have you controlling an object on the screen which is visible in relation to all other characters present on the display. This is called a third-person game.

A first-person game, on the other hand, puts you inside the object of control, looking out. This is also called cockpit perspective.

The underlying object of *Star Master* is to defend each of your four starbases, which are positioned at the outer corners of the galaxy. To do this, you must destroy every alien ship, the number of which varies according to the game you select on the cartridge.
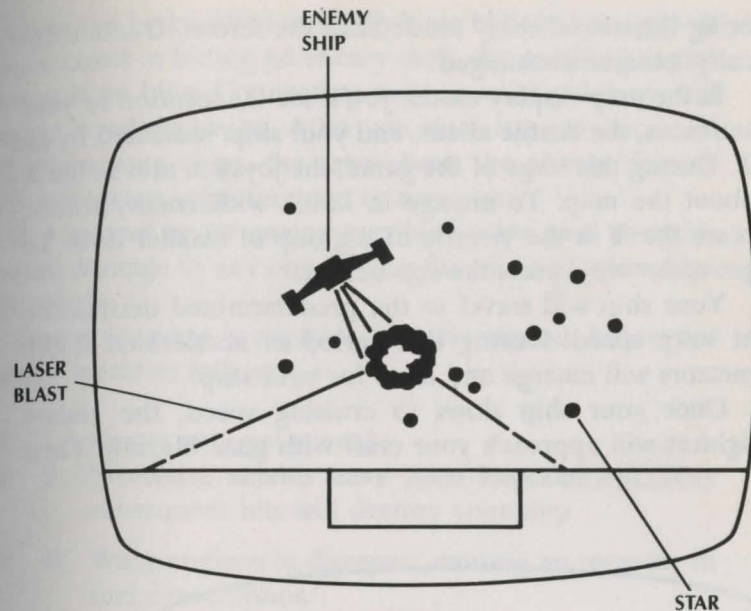
You are allotted 9,999 energy units at the outset of each game. Energy units are subtracted while firing, flying at cruising and warp speed, and when collision with a meteor occurs. Running out of energy is a no–no and must be avoided at all costs. This is where the starbases come in. Each time your ship docks with one, its energy reserves are brought back to 9,999 units and any damage that your ship sustained is repaired. (More on damage later.)

To get an overview of the entire galaxy, move the left difficulty switch either left or right, depending upon its immediate position. Moving this switch serves only to

bring the map-display mode onto the screen. Game difficulty remains unchanged.

In the map-display mode, you'll see the location of your starbases, the hostile aliens, and your ship, indicated by an *X*. During this stage of the game, the joystick moves the *X* about the map. To engage in battle with enemy forces, place the *X* in the vicinity of a group of smaller dots. To get under way, press the red button.

Your ship will travel to the predetermined destination at warp speed. During this period of accelerated flight, meteors will emerge and head for your ship.

Once your ship slows to cruising speed, the enemy fighters will approach your craft with guns blazing. Their
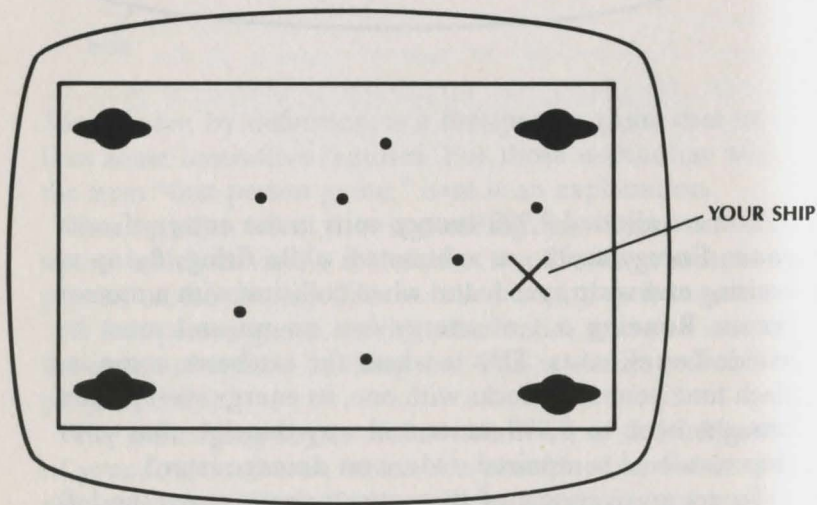
The map display mode in *Star Master*. Your ship is depicted by the "X".

rockets can be knocked down by laser blasts or dodged. If you succeed in hitting an enemy shell, the resulting explosion will be blue. Connecting with an enemy fighter will trigger a red explosion. After you clear any one sector of all threatening ships, the area about the energy display will turn green, signaling you to move on.

If a meteor or an enemy gun blast slips past your defenses, damage to any one of four functions of your ships will result.

Specific damage is explained on the readout below the energy meter as follows:

D: L   Lasers not operational.

D: S   Protective shields have been knocked out. Any subsequent hits will destroy your ship.

D: W   Warp engines in disrepair, causing an increase in fuel consumption.

D: R   Radar inoperable. When you switch to the map display mode, enemy ships will not show.

Even though each form of damage presents its own unique complications, they are all remedied in the same manner. Simply switch to the map display mode to locate a starbase. Upon docking with it, your ship will be restored to showroom condition.

While in flight, the joystick serves as a means of steering while the red button activates lasers.

Remember that the north-south headings on the joystick cause your ship to move in opposite directions. Pulling back on the joystick causes the ship to climb, while pushing it north will cause it to dive.
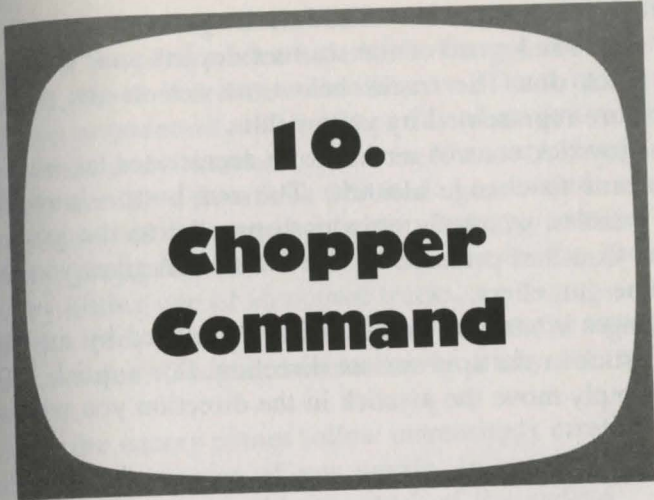
In the interest of energy conservation, it is wise to shoot

your laser sparingly. Each blast drains one hundred units.

While under warp speed, dodge the meteors instead of shooting them. This conserves energy. At the same time, you are not risking a possible collision and resultant damage.

After switching to the map-display mode, head for the sector containing the highest concentration of alien ships. It is far better to face a beefed-up fleet with a full complement of energy than to challenge them when fuel reserves become a survival factor.

If any damage is sustained during the course of battle, head directly for a starbase for repairs.

10. Chopper Command

The concept of Activision's *Chopper Command* seems heavily influenced by the arcade game *Defender*.

In this airborne battle over desert terrain, "Chopper One" plays guardian angel over a convoy of trucks rolling along the highway below. The aggressor helicopter gunships and jets have two missions:

Bomb this defenseless caravan and bring down the player's chopper!

Your mission, like theirs, is twofold:

Stop them before all your trucks are blasted into dust!

The playfield scrolls across the screen in either direction. The actual battleground is longer than that which can be represented on the screen at one time. As a visual

aid for seeing what lies ahead, a long-range scanner is provided. The legend of the scanner depicts your chopper as a black dot. The trucks below, as well as the planes above, are represented by yellow dots.

The joystick control serves as an accelerator, as well as the means to change altitude. The red button launches your missiles, which fly on a path parallel to the ground below. Constant pressure on the red button gives you the machine-gun effect.
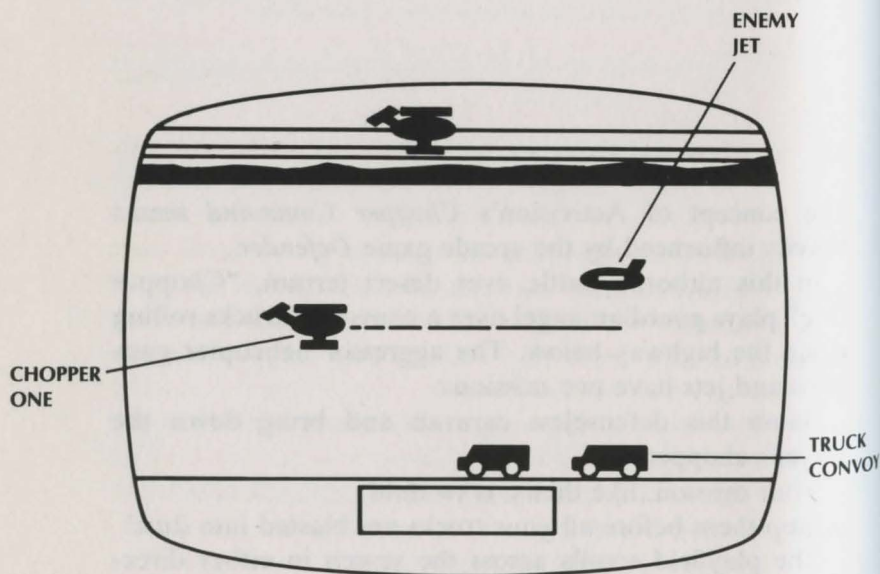
Changes in altitude and speed are achieved by moving the joystick in the appropriate direction. For a quick 180° turn, simply move the joystick in the direction you wish to

ENEMY
JET

CHOPPER
ONE

TRUCK
CONVOY

head. Chopper One reacts well in this situation, except when it is traveling under full steam. Once a 180° turn is initiated, the forward thrust will carry it in a backward direction momentarily. Remember this when you're heading into a closely bunched squadron of enemy planes.

There are three situations that must be avoided: a mid-air collision with an enemy fighter, running into an unfriendly projectile, and flying too close to the ground, thereby hitting one of your own trucks.

Of the three mishaps, the first and last are the two most easily avoided. Dodging bombs can be tricky, too, so pay attention.

Since the enemy planes follow increasingly erratic flight patterns, it is unwise, if not unsafe, to get too close to them, or to put yourself in the thick of a squadron.

I recommend moving along until the scanner shows that any number of planes are about to enter the battle arena (i.e., appear on the screen). By doing this, you provide yourself with a buffer zone large enough so that you can react to the erratic behavior of your aggressors, and at the same time, put the enemy within range of your missiles.

The unfriendly bombs that are out to get you and your trucks manifest almost unpredictable behavior.

A bomb dropped by one of your opponent's ships will hover motionless for a brief period of time. Suddenly, the dot will split in two, one half hurling downward to the trucks below, the other shooting off toward the heavens. Each half, however, does not follow a true vertical course. Instead of moving perpendicularly to the ground, each missile fragment will fly off at an obtuse angle.

To protect yourself from destruction, never cross the path of a hovering missile, since you never know when it will split. If you keep your distance from the hostile

CHOPPER
ONE

ENEMY
BOMB

TRUCK
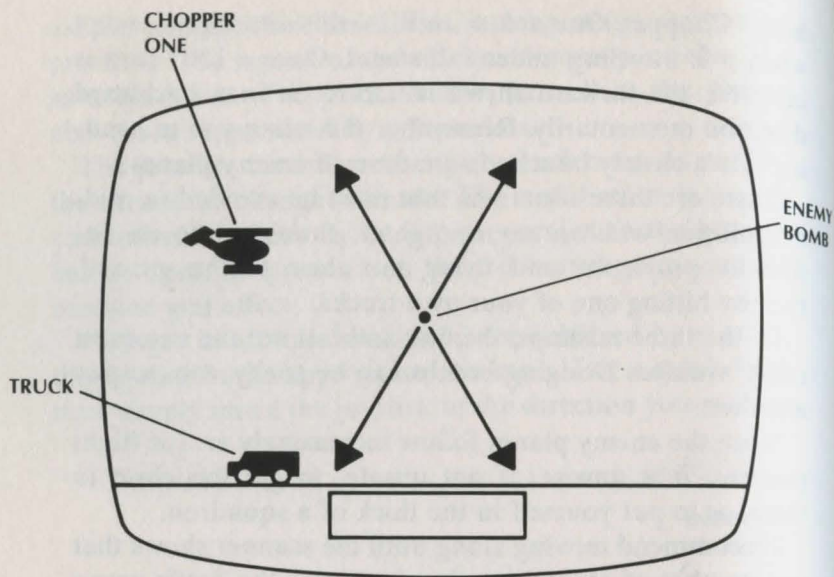
A bomb deposited by either an enemy helicopter or jet splits at angles.

planes, as described earlier, the bombs will pose little threat.

Your fleet is composed of three helicopters at the outset of each game. With each 10,000 points accumulated, one bonus bird is awarded.

11.
Demon Attack

Imagic, one of the newcomers in the home video game industry, has drawn on the efforts of veteran game designers who previously served in the ranks of both Atari and Mattel Electronics and introduced three original cartridges compatible with the Atari VCS.

Demon Attack, one of its first offerings, is a laser-base game that pits you against a fleet of hovering aliens. What separates *Demon Attack* from other games of a similar nature is the fact that each progressive wave uses a different attack strategy against you. To compete, you must alter strategies accordingly.

In each of the ten games on the cartridge, hopeful demon attackers are granted three "bunkers," or game lives.

With each armada of aliens destroyed (eight in each wave), a bonus bunker is credited to your reserve until a maximum of six are displayed along the bottom of the screen.

The joystick controller is used to move your fighter either left or right. Your retaliatory missiles are launched by a touch of the red button.

Each wave of demons will employ a different attack strategy against your bunkers. Your counterattack will remain relatively unchanged throughout the game, with the exception of a few tactics I'll discuss later that are effective in different situations.

In the first four rounds you will face a total of eight aliens per. At any given moment, only three will appear on the screen. The remaining five will materialize to re-

DEMON

DEMON BOMBS

LASER BLAST

LASER CANNON
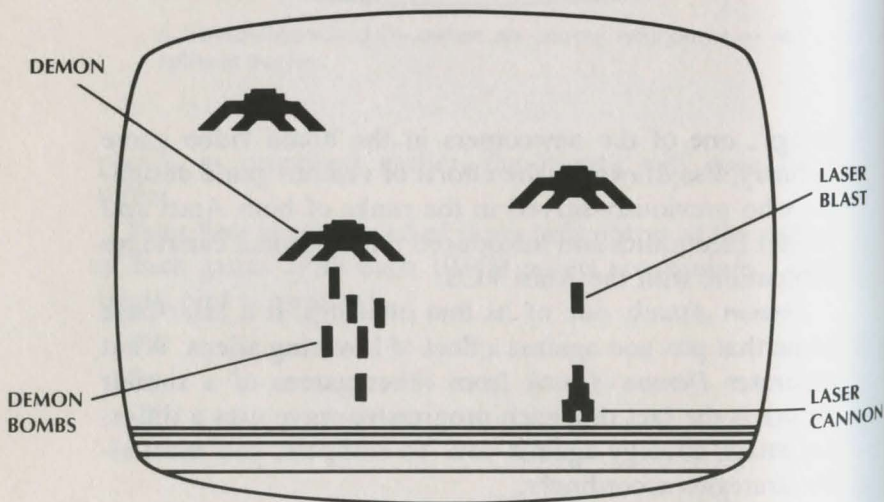
place any demons you destroy. Of the three, only one demon will strafe the lower playfield with bombs. Since the bombs fall in an almost true vertical path, they are easily dodged.

The munition hurled down by the aliens in the third and fourth wave is trickier than the pellets used by the first- and second-level demons. The creatures fire laser blasts that travel parallel to one another. Needless to say, the area between these deadly rays is hazardous to your ship.

The first real test of defensive maneuvering comes at level five. In this round, the demons split when you hit them. The resulting mini-demons will then dive at your base, in hopes of crashing into it.

The one demon that bombards you in this stage of the games drops more bombs as a whole alien than he would if cleft in two. To reduce the threat of falling bombs considerably, first shoot the bomb-laden demon. Only one of the resulting halves will continue ejecting deadly shells. Now concentrate on the passive aliens. If you shoot the armed half, a complete original-size demon will materialize to take its place. Save the bomber for last.

The kamikaze demons are a lucrative target because of their high point value. The easiest method of annihilating them is to simply stand still, firing repetitively. If they persistently elude your shots, move left or right. The diving demons will eventually disappear off the bottom edge of the screen.

During rounds seven and eight, the laser-wielding demons reappear. Like their cousins in the previous two battles, these creatures will divide when hit and subsequently attempt to ram your ship.

To knock the punch out of an armed demon, shoot him first. The product of this division yields two mini-demons, only one of which can shoot at you. Now go to work on the unarmed demons.

In later stages of the game, the demons' sense of your position becomes more acute. Their bombs, once dropped, will also track you. Instead of falling vertically, they will descend at an angle toward your bunker.

Attacking the most aggressive alien first is still a good opening move in this situation. The trick is getting underneath him for a good shot.

The aliens, particularly the armed ones, move and fire in a definite rhythm. To safely pass below them, watch for this pattern of movement. After a few seconds of observation, you should be able to judge when it is safe to duck under the demons.

Games four and eight on *Demon Attack* give you "tracer"-shot capability. This feature lets you put "English" on any missile your bunker launches. To alter the flight path of a tracer shot, move your base either left or right. The ascending shot will shift over perpendicular to your fighter's new position. This change of direction occurs simultaneously with its upward flight. The tracer, therefore, travels at an angle.

To use tracer shots effectively against a demon, fire a missile while stationed either left or right of your traget. Move your ship toward the alien. The missile will mimic your action.

Games nine and ten are "special co-op" versions of *Demon Attack*. In this situation, two players alternate control of one laser base every four seconds. The change in command is signaled by a change in the bunker's color.
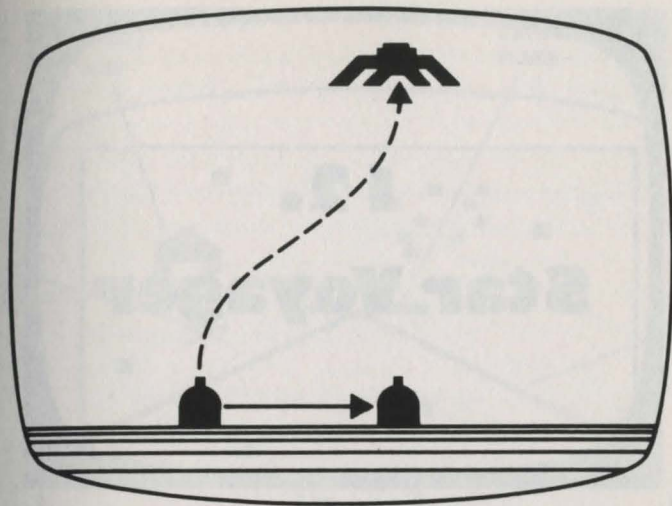
A tracer shot works like this: Fire from one position, then move your bunker toward the target. The missile will follow suit.

Though each player uses a separate joystick and maintains his own point tally, the reserve game lives are used and lost together.

If the laser base is destroyed while under your partner's command, you will be awarded 500 points.

A devious way to gain this 500-point bonus involves placing the laser base in jeopardy just before control is transferred to your partner. To do this successfully, mentally count the seconds that you maintain control of the bunker. Just before the base changes color, move it under a descending salvo. When your partner finally has a chance to react, it will already be too late!

12.
Star Voyager

Star Voyager, a "First-Person" game, is a challenge of your ability to navigate accurately.

Players have cockpit perspective in *Star Voyager*. As you gaze out into space, oncoming aliens will emerge from the horizon, looming larger as they close in. To stop them, guide them into the cross hair at center screen.

At your disposal are two weapons, only one of which can be chosen for any one game. The more powerful of the two is the laser. When the red button on the joystick housing is depressed, a pair of these deadly rays will shoot forth, one from either side of the screen. Even though they intersect at the cross hairs, their effective swath of destruc-

tion is defined by the path they follow and the adjacent airspace.
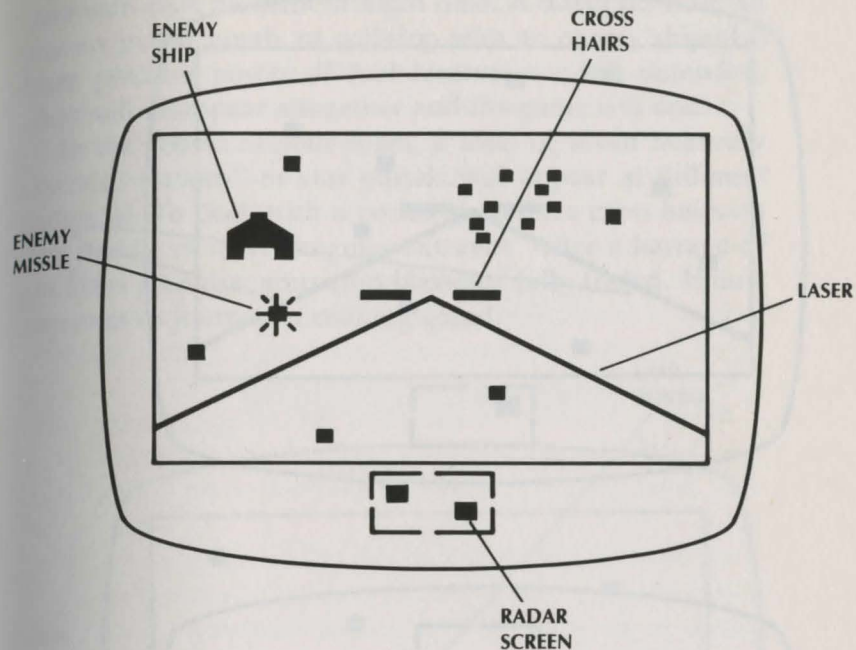
Photon torpedoes are fired alternately from the left and right sides of the screen. Their maximum range is to the target sights. Like the lasers, photon torpedoes will destroy anything in their flight path.

Star Voyager is more than flying and shooting. A fuel factor is involved that calls for strategy in certain circumstances.

At the beginning of your mission, you are given ninety-nine fuel units. The supply diminishes with each shot fired

LASERS
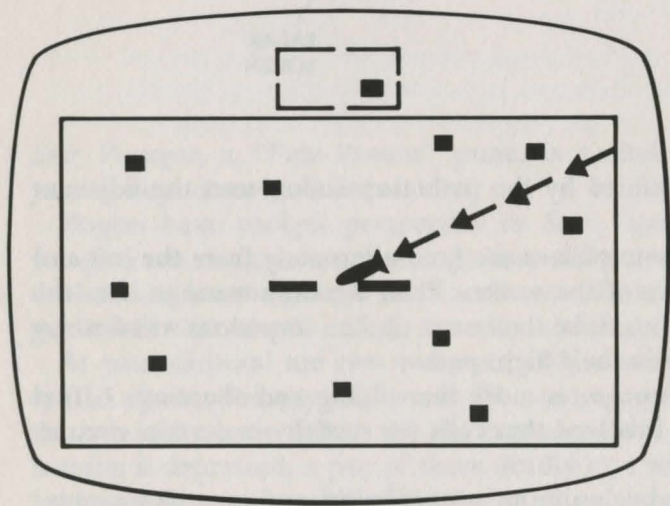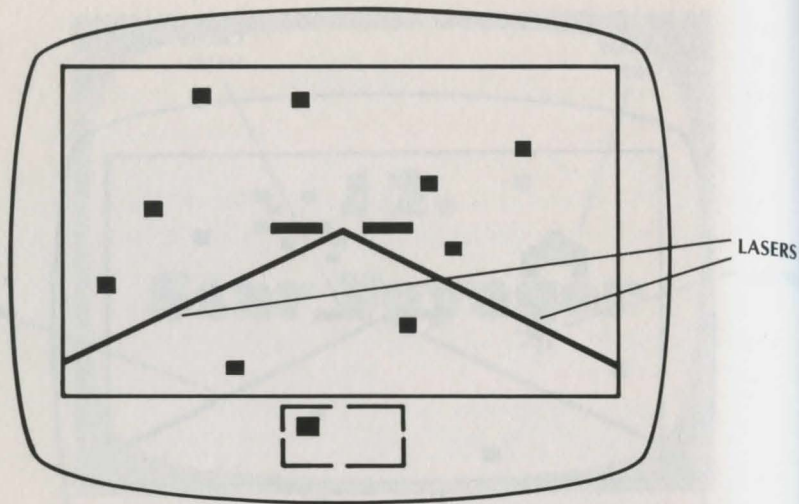
and with each moment of flight time. A direct hit from an enemy pulsar bomb, or collision with an enemy ship also saps precious power. If fuel reserves are left untended, they will disappear altogether and the game will end.

In the course of your flight, a total of seven heavenly "service stations" or star portals will appear at different intervals. To dock with a portal, center the cross hairs on the middle of its rectangular entrance. After a barrage of brilliant graphics, your ship becomes fully fueled. It now resumes its journey at cruising speed.

STAR PORTAL

STAR

RADAR SCREEN
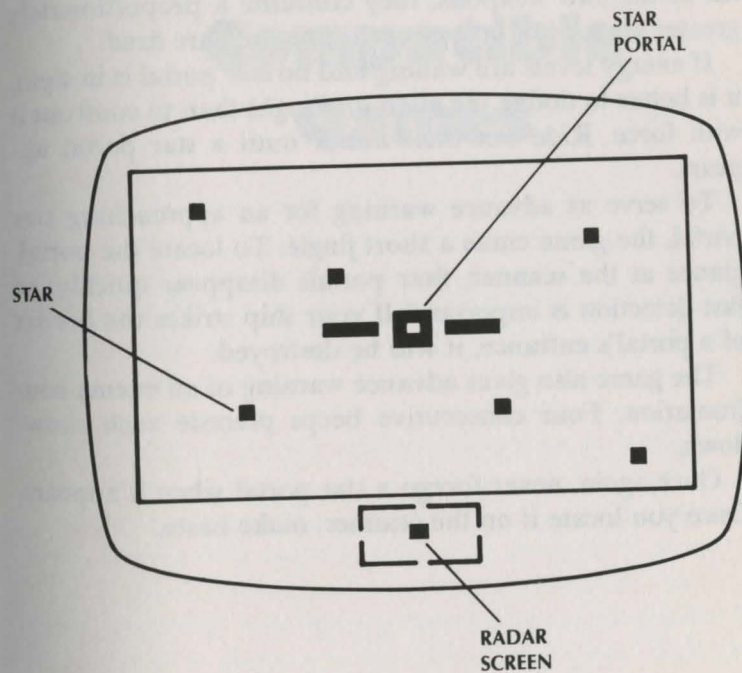
To enter a star portal, align the crosshairs with the opening as shown. Be precise! Hitting a portal border ends the game.

Your ultimate objective in *Star Voyager* is to obtain the highest possible ranking. This final rating is based on a formula that combines the number of enemies you brought down, together with the number of Star portals you entered. The longer you stay in the game, the better chance you have of attaining a higher ranking. To stay in the game longer, you must keep a watchful eye on your energy gauge.

To conserve energy, it is wiser to use photon torpedoes instead of lasers. Even though lasers are the more powerful of the two weapons, they consume a proportionately greater amount of energy each time they are fired.

If energy levels are waning and no star portal is in sight, it is better to dodge the alien onslaught than to confront it with force. Ride out their attack until a star portal appears.

To serve as advance warning for an approaching star portal, the game emits a short jingle. To locate the portal, glance at the scanner. Star portals disappear quickly, so fast detection is important! If your ship strikes the border of a portal's entrance, it will be destroyed.

The game also gives advance warning of an enemy confrontation. Four consecutive beeps precede each showdown.

Once again, never forego a star portal when it appears. Once you locate it on the scanner, make haste.

PART II

Odyssey²
Compatible
Games

Introduction

If someone asked you, "Who made the first home video game?" the correct answer would not be Atari, but Magnavox, makers of the *Odyssey* game system.

Back in 1972, a gentleman by the name of Ralph Baer took the idea of a TV game system to the people of Magnavox. Baer's inspiration for this? "The TV set should be good for something besides looking at dumb programs!"

The original Odyssey system was priced at $100. Crude by today's standards, the game was only operable in black-and-white and lacked an aspect of play we now take for granted: ball containment. In a *Pong*-type game the ball or blip would go off the screen instead of bouncing back into play. Any fancy graphics desired were achieved by placing a plastic overlay over the screen. Definitely Dark Ages!

The $100 price tag of the original Odyssey unit underlines the value of the Odyssey² game system. For less than

double the price of the original, you get an advanced game system, the product of a decade of technological breakthrough and a computer keyboard to boot. Without even considering inflation, this isn't a bad buy!

Overshadowed by Atari—and more recently, Intellivision—Odyssey remains the sleeper in the home video game industry. In a point-for-point comparison recently conducted by *Video Games* magazine, the Odyssey² stacks up rather well against Atari VCS. To complement the Odyssey² system, Magnavox has introduced some entertaining additions, both in hardware and software.

Recent game cartridge developments include the Master Strategy series, a unique mix of video play with tried-and-true elements of board games. *The Quest for the Rings, Conquest of the World,* and *The Great Wall Street Fortune Hunt* are currently available games. The beauty of the Master Strategy series is that an entire group (2–6 players) can play each game simultaneously. These games, too, are easy to learn and are not easily "maxed out," an important consideration in light of current game-cartridge prices. ("Maxing out" occurs when a game is played continually, mastered, and then shelved because it becomes boring).

Keyboard Creations is one cartridge that does not fall into the game category. Instead, it puts the keyboard console to work for some practical applications. *Keyboard Creations* has many different functions. In one mode, it serves as a character generator for professional-looking video tape titles. It also turns your TV into a message center. A total of ninety-six characters can be programmed to scroll across the screen in ticker-tape fashion. This cartridge can also project a working digital clock on your TV screen. Background colors to soften or heighten message impact are user-selectable.

One hardware development of note is the Odyssey² Voice and Sound Machine. Expected to retail for under $100, this add-on plugs directly into the master unit. New game cratridges will be introduced in conjunction with the voice module that will utilize the capabilities of the sound-producing synthesizer.

Boasting an unlimited vocabulary, the voice module can repeat anything typed on the keyboard, a development with wide potential for musical and educational applications.

13.
Out of This World

Out of This World is probably the most deceptive-looking home video game every made. Only one control (the action button) is needed to operate and the object of the game is so simple that seasoned video jocks would probably write it off as child's play.

Every encounter I have had with *Out of This World* cultivated a level of "healthy" frustration seldom experienced playing any other game.

The object of *Out of This World* is to touch down safely on one of three lunar surfaces with your lander—and, after landing, ascend to hook up with a mother ship traversing the upper edge of the playfield at varying speed and direction. After docking, your lander plummets back to the ter-

rain. This cycle continues until one player manages ten hookups or his fuel—or "megajoules" of energy—is depleted.

At the outset of each round, both players are given fifty energy units. The supply is depleted proportionately each time the action button is depressed. The gravity factor, which differs in each of the three games, realistically affects the power consumed while attempting a soft landing or a precise lift-off. Likewise, accumulated thrust is dissipated after the action button is released, causing your ship to either run on or momentarily hang motionless.

MOTHER
SHIP

OPPONENT'S
SHIP
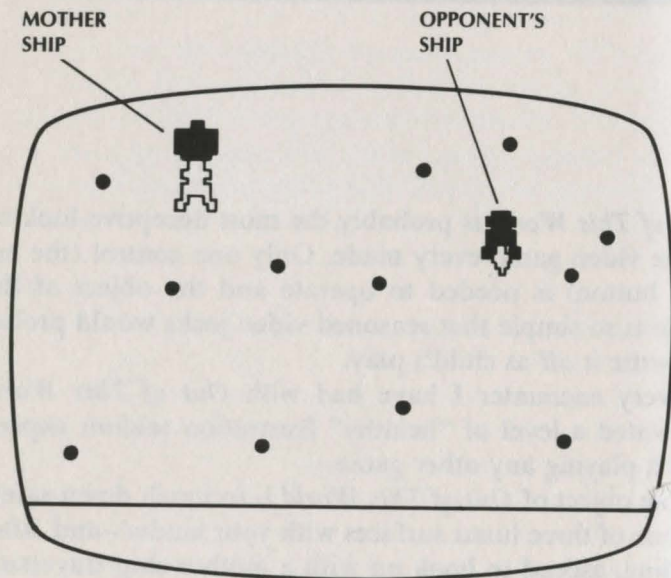
As a reward for a soft landing, your fuel supply is credited with twenty additional megajoules, which is added to the units remaining after descent. The maximum capacity of fuel reserves is set at 60 megajoules. (For those unfamiliar with the term *megajoules* or *joules,* it defines the amount of energy necessary to exert a force of one newton—the force needed to move a one kilogram mass one meter per second—the distance of one meter).

A botched landing, which results in a crash, costs ten energy units. The delay for repair has no effect on your performance if playing solo. In a two-player situation, though, your opponent benefits from your downtime. The crash affords him the opportunity to dock uncontested.

In a two-player game, only one competitor will be able to dock with the mother ship in each round. His fuel supply is replenished, while the unlucky player who missed the mother ship must go through the next round with less than a full tank.

The person who can manage fuel reserve in the most efficient manner will ultimately stand the best chance of winning.

The strategy necessary for beating *Out of This World* calls for a balanced touch when pressing the action button. A soft-touch-only approach is not effective, since sufficient inertia must build up before your ship will move. On the other hand, a heavy hand will cause you to overshoot your target and waste fuel. This is unwise practice for two reasons. First, if your ship travels too far off the top of the screen, it will crash. Second, by constantly accelerating, the benefits of coasting and momentary suspension are wasted.

For each of the three game variations, I have set fuel requirements for each type of desired movement.

The easiest variation simulates the gravity present on the moon. For a safe landing that depletes the fewest energy units it is first necessary to train your eyes to focus on the power readout and your lander simultaneously.

As a landmark, I have selected the lowest star (which appears as a white dot) on the right side of the screen.

For a smooth, fuel-efficient descent in games one and two (Moon and Mars), free fall until the bottom of your lander touches the imaginary line by this star. For lunar gravity, press the action button until no fewer than ten units are gone. Release the button when the fuel gauge reaches 40. Your ship will touch down unscathed. If you utilize exactly ten units, your megajoules total will reach 60, the maximum.

Under Mars' gravity conditions, press the action button when your ship reaches the same point. Since the planet's pull is stronger in this game, use a minimum of twelve units, but no more than fifteen for a safe landing.

Docking with the mother ship does not require accuracy of placement; your lander need only touch it. The ascent should be made in a specific number of fuel units to maximize the time your ship will hang in the mother ships' path.

To ascend to the mother ship's level in lunar gravity, press the action button until twelve to fifteen megajoules have been used. Expending any more than fifteen will cause your ship to exit at the top of the screen. In the Mars variation, the acceptable range is between seventeen and twenty.

If the mother ship is not near your lander when you reach the top of the screen, tap the action button to keep aloft. A five- to eight-unit burst will keep your lander in the mother ship's zone.

The Jupiter variation has the strongest gravitational pull. Landing is the toughest part of this game and requires a three-step process to perform successfully. Mentally divide the screen into three sections. After the ship has fallen a distance equal to its length, thrust for ten units. Free fall until the landmark used in the other games is reached. Thrust again for ten units. When your lander approaches the top of the fuel display, thrust till touchdown. The gravity of Jupiter is extremely strong. If the retro-rockets are not running at touchdown, you'll crash. Therefore, keep your engines burning until your lander's feet are touching the soil.

14. Helicopter Rescue

Helicopter Rescue is another game that appears simple, but in truth can be downright aggravating to master.

In this race against time, your mission is to pilot a chopper over the "Doomsday Hotel" to rescue survivors. After bringing aboard one person by lowering and raising the rescue basket, you must fly back to the rescue pad and discharge your passenger. The object of *Helicopter Rescue* is to save as many people as possible within two minutes.

Your only setback occurs when you stray from safe air space and hit either the Doomsday Hotel or the rescue pad. After a collision, your chopper is grounded back at the starting gate and one point is subtracted from your rescue tally.

To raise and lower the rescue basket, the action button is used. This is the most confusing and time-wasting aspect of the game. When pressed and held, the basket is lowered. When the button is momentarily released and then repressed, the harness is retracted back to the chopper. The chopper will not move when the basket is down. The harness, likewise, is inoperable while the chopper is moving.

Therefore, precise position as well as taking the shortest possible route to and from the hotel and rescue pad are first steps toward a good score. Since the basket moves at a

HELICOPTER

RESCUE HARNESS

SURVIVOR

DOOMSDAY HOTEL

RESCUE PAD
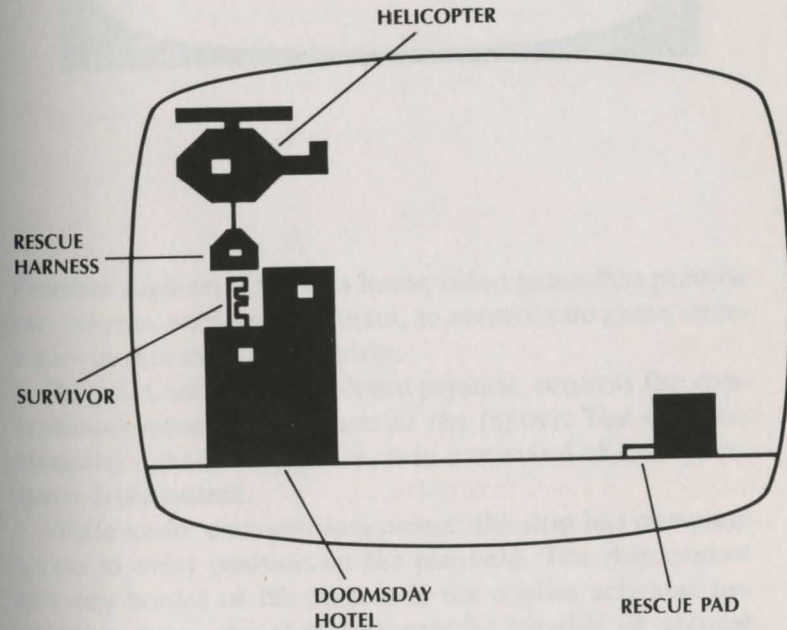
slow rate, get in as close as possible to each target without striking their respective roofs. The belly of the chopper can skim along the top of each structure safely.

Also, remember to hold the action button down when you wish to raise or lower the basket. If you accidentally release it, you'll have to press it twice to move in the direction you desire. This mistake wastes time.

15.
Freedom
Fighters

Freedom Fighters is the first home video game that permits two players, working as a team, to control one game character—in this case, a spaceship.

The pilot, using the left-hand joystick, controls the conventional space drive system of the fighter. The co-pilot, using the right-hand joystick, is in command of the hyperspace drive system.

While under conventional power, the ship has complete access to every position on the playfield. The ship cannot exit any border of the screen. If the copilot activates hyperspace drive, the ship will only be capable of vertical movement in the center of the screen, but as thrust increases, the portions of the playfield that exist outside the

borders of the screen will begin to stream past. In summary, conventional drive offers flight control inside the shown playfield only. Hyperspace drive allows the ship to move to a different sector in space. Switching between the two is simple. Hyperspace drive overrides conventional drive when activated. When hyperspace drive is shut off, conventional takes over again.

Each mode of control has its advantages and disadvantages. The forte of conventional drive is the quick maneuverability it gives your ship. Its lone drawback is that your ship, under conventional power, cannot venture past the borders. This is where hyperspace drive is a blessing.

Though maneuverability is sacrificed, hyperspace shows its worth when escape is necessary. A ship under hyperspace drive cannot change direction as quickly as a ship using conventional drive. In fact, there is a lengthy deceleration period before a 180° turn can be initiated. You have been warned!

Freedom Fighters is a battle to score points. This is done by blasting pulsar worships and the drone mines they leave behind. The most lucrative source of point revenue does not involve shooting, but rescuing. Periodically, a flat box-shaped object will float across the screen, tumbling end over end. In these "confinement crystals" lie captured astronauts. To rescue them, you must guide your ship so that it runs over the crystal. (Be careful not to shoot it!) Each time a rescue mission is successfully executed, the

ENEMY
MINELAYER

KILLER
DRONE
MINE

YOUR SHIP

While under conventional drive, your ship has free run of the playfield.
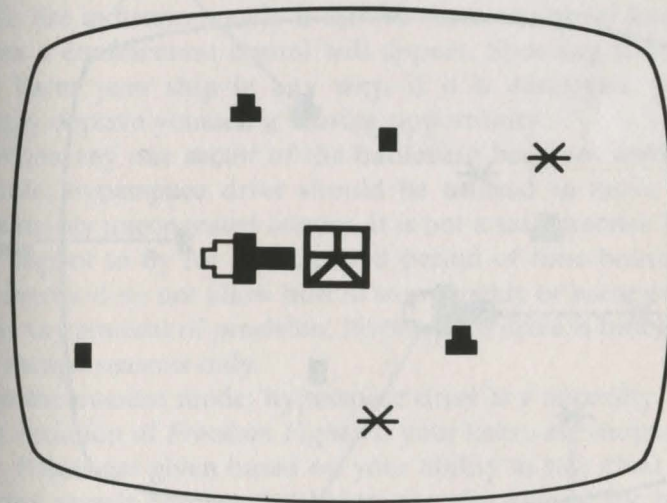
To rescue a captive astronaut from a confinement crystal, simply run through it.

screen will flash (purple on color sets) and twenty points will be added to your tally.

The opposition consists of two nemeses, namely, pulsar warships and their drone mines. Pulsar warships follow an arching flight path. As they meander about, a trail of drone mines is left behind. The drone mines, as a group, travel in an arching flight path also. Drone mines, once released, move in one direction only. They are easily out-smarted. Collision with any ship on the screen (except a confinement crystal) ends the game.

The percussion of any exploding enemy craft is deadly to any other enemy in the immediate vicinity. Though this is not stated in the game booklet, observation of the game will verify it.

DRONE
MINE

DUST
PARTICLE

ENEMY SHIP   YOUR SHIP
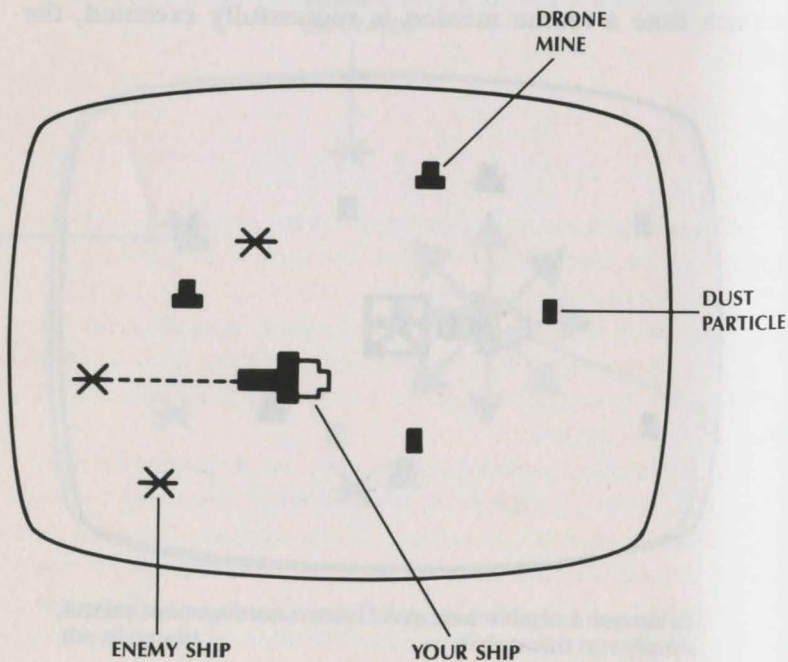
If two are playing, teamwork is essential. The pilot (con-trolling the conventional drive) should fly about the screen, shooting everything in sight, all the while looking for a stray confinement crystal. The copilot (hyperspace drive) should only take over when drone mines are closing in on the ship and the conventional drive cannot supply the power for an escape.

To provide yourself the widest margin for error, never position the ship too close, or up against, either the east or west border. Your best attack plan calls for observing the direction the drone mines are flying and then positioning your ship so that they will be floating away. Try to operate from the middle of the screen as often as possible. A ship sitting too close to any border will either be trapped by a closing wall of drone mines, or be surprised by pulsar war-ships entering the playfield from the left or right sides.

To fire indiscriminately is unwise since you never know when a confinement crystal will appear. Shooting it does not harm your ship in any way. If it is destroyed, you simply deprive yourself a scoring opportunity.
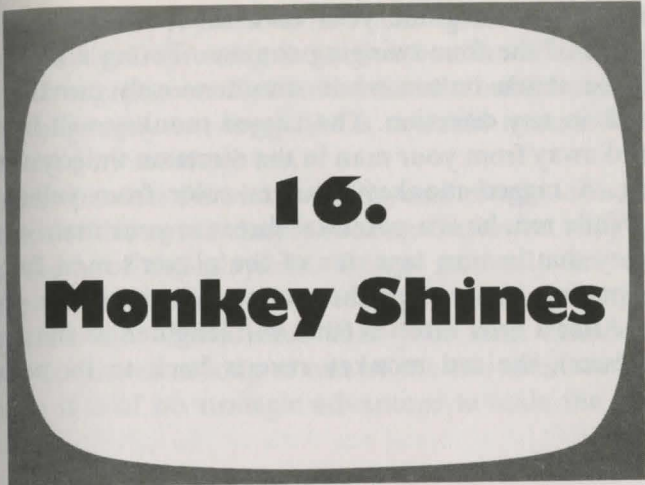
When any one sector of the battlefield becomes unhos-pitable, hyperspace drive should be utilized to move to reasonably uncongested sectors. It is not a safe practice for the copilot to fly for an extended period of time because his inertia does not allow him to stop quickly or maneuver with any amount of precision. Hyperspace drive is best left for escape reasons only.

In the evasion mode, hyperspace drive is a necessity. In this variation of *Freedom Fighters,* your lasers are inopera-ble. Points are given based on your ability to stay clear of enemy vessels and bombs. Points are also earned for res-cue missions.

In the evasion mode, hyperspace drive should be utilized most of the time in the following manner:

Use short bursts of thrust and periodically stop.

When a confinement crystal approaches, conventional drive should be implemented to rescue the captive. Once done, move in short hops with hyperspace drive.

16.
Monkey Shines

The concept of *Monkey Shines* is a computer interpretation of "Tag." Its primary attraction is that no two games of *Monkey Shines* are ever the same. This is a real plus since most home games, once mastered, are nothing but repetition. At this point, much of their appeal is lost. Another laudable feature of *Monkey Shines* is that certain variations of the game permit three players to work as a team against the computer.

The basic game of *Monkey Shines,* and all the subsequent variations, put you in command of one of two men. At the outset of each game, your man appears on the lowest rung of a randomly generated series of "monkey bars." The opposing side consists of four computer-controlled monkeys. To score points (the object of the

game), you must guide your man till he makes contact with one of the four swinging simians. To tag a monkey, push the action button while simultaneously moving the joystick in any direction. The tagged monkey will be jettisoned away from your man in the direction the joystick is facing. A tagged monkey changes color from yellow to red. While red, he is a potential threat to your man. A red monkey that in turn tags one of the player's men freezes him, putting him out of the competition until the game ends. After a brief interval (that will lengthen as the game progresses), the red monkey reverts back to its normal state.

By using the joystick alone, your man can only move horizontally. Depressing the action button and moving the joystick together enables your man to climb, descend and leap diagonally one level. He is not able to scale vertical bars the way monkeys can.

Your man has the most mobility and room to run on the bottom of the screen simply because the lowest rung spans the width of the playfield. Rungs generally are sparse higher up, which is to the monkeys' advantage—they can negotiate the vertical bars that your man cannot. The game continues as long as one of the two men are operable, so it is of no strategic advantage to scale the bars in
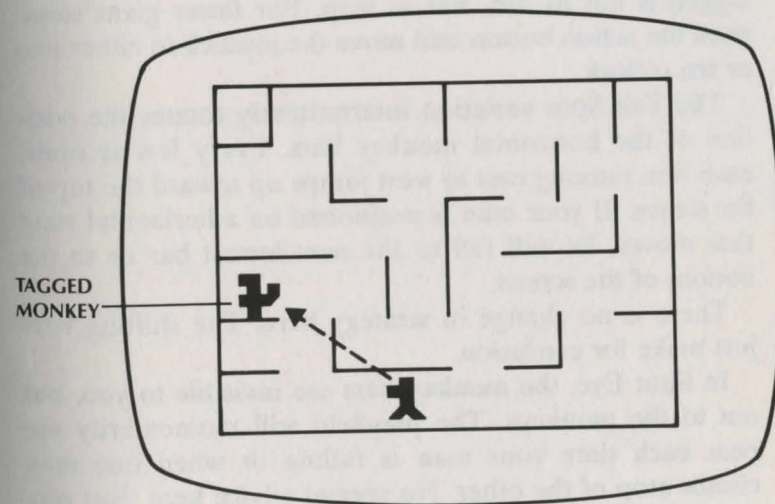

Your opponents in *Monkey Shines* is a group of computer-controlled monkeys that have a superior mobility advantage over you.

A tagged monkey is pushed away from your man, depending on the direction the joystick is facing.

search of monkeys to tag. To do this is to play into their hands. You will be fighting on their turf where they have the edge as far as mobility is concerned. A good practice is to stay near the bottom of the screen and wait for the monkeys to come to you.

When you tag a monkey, think first about the direction in which you are going to propel him. Your best bet is to push him directly away from your man horizontally or diagonally when you are at or near center screen. If you are too close to either of the two sides of the playfield, send him toward the center. A monkey propelled against a wall will bounce back toward you. Monkeys, however, can be pushed at a horizontal bar without rebounding toward your man.

The quickest means of escape from a monkey just tagged is not to run, but to leap. For faster giant steps, push the action button and move the joystick to either two or ten o'clock.

The Tail Spin variation intermittently rotates the position of the horizontal monkey bars. Every few seconds, each line running east to west jumps up toward the top of the screen. If your man is positioned on a horizontal rung that moves, he will fall to the next lowest bar or to the bottom of the screen.

There is no change in strategy here. The shifting bars just make for confusion.

In Shut Eye, the monkey bars are invisible to you, but not to the monkeys. The playfield will momentarily appear each time your man is falling or when one man climbs atop of the other. No special advice here. Just stay near the bottom.

The Monkey Chess variation of *Monkey Shines* offers an implemented strategy. In this game, two players control one man apiece, while a third uses the keyboard console to add or subtract monkey bars anywhere on the playfield.

The "stay-on-the-bottom" strategy works well in the beginning of the game. Its effectiveness is reduced significantly in later stages of play because the monkeys remain on the offensive for longer periods of time. Eventually you will run out of places in which to run and hide.

A good hit-and-run strategy requires the keyboard operator to build an escape ladder for the fleeing man after the monkey is tagged. When the monkey gives chase, the keyboard controller should delete the lines used by the man to get away. By doing this, the monkey is forced to take a longer route.

17.
UFO

UFO gets the nod as the most difficult home video game ever made, due mainly to idiosyncrasies in the game's design. Still, there are certain quirks that can be utilized to your advantage.

In *UFO*, the player controls an armed flying saucer. Shrouding this ship is a ring of blue dots—a force field. One of the beads in this chain is oversized. It serves as your ship's laser cannon.

UFO, like most games is the Odyssey library, plays on until your ship is destroyed. Challenging you in this contest are three different alien forms, differentiated by color, point value and level of aggression.

The game booklet accompanying *UFO* describes the most passive, unfriendly life form as a lethargic craft, ca-
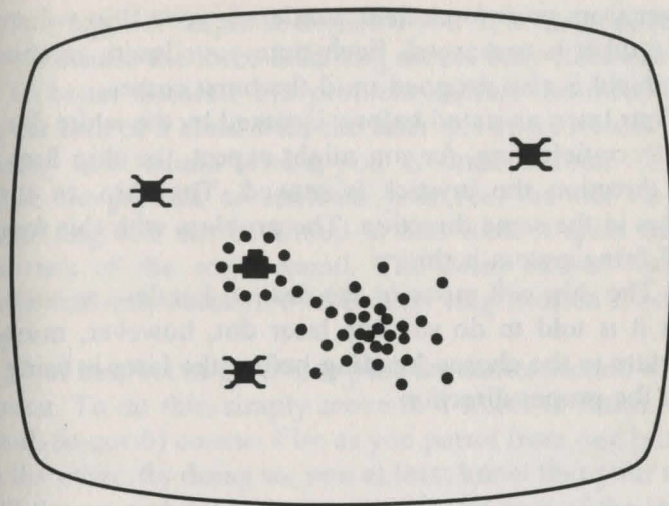
Each time your lasers are fired, the force field disappears momentarily.

pable of random movement only. The next variety is said to be the sum of two "dummy" crafts that have merged. If they possess the "search-and-destory" instinct, as the booklet states, it is not evident when playing the game.

"Light-speed starships," the final species of *UFO*, are the deadliest of the bunch. Even though they seldom enter the playfield, they are quite dangerous. The javelin-shaped missiles they throw off pass right through your force field.

Before we go any further, let's talk about that force field. This circular string of energized beads enables you to ram enemy ships. The impact will momentarily drain all

power from your force field, rendering your ship vulnerable until it is recharged. Each time your lasers are fired, the shield is also dropped until the burst ceases.
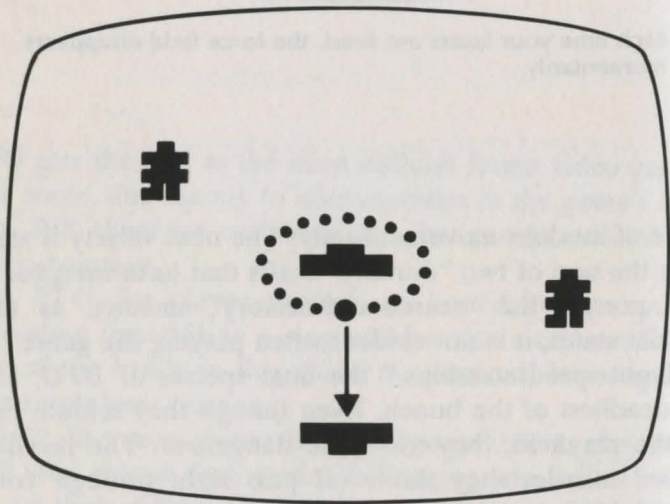
Your laser, as stated before, is aimed by the white dot in the force-field ring. As you might expect, the ship fires in the direction the joystick is moved. The ship, in turn, moves in the same direction. The problem with this force-field-firing system is this:

The ship will move in the desired heading as soon as it is told to do so. The laser dot, however, must rotate to the chosen heading before the laser is firing in the proper direction.

This lapse of response deprives you of control, particularly because the force-field ring moves only clockwise.

To better illustrate this problem, picture the force field as the face of a clock with the laser dot at six o'clock. An enemy craft heads toward you at three o'clock. If you move the joystick to confront your foe, the dot on the outer ring will not be aimed at him until it spins three-quarters of the way around. The delay caused by the clockwise-only rotation of the outer ring is often frustrating.

Your best bet in *UFO* is to play the center section of the screen. To do this, simply move in a north-to-south (and south-to-north) course. Fire as you patrol from one border to the other. By doing so, you at least know that your ship will fire up and down during the greater part of the trip.

To clear the battlefield, ram as many ships as possible. Allow for the post-collision recharging period.

The light-speed starship is your most formidable foe, but it, too, has a weakness. The starship can only fire diagonally. Any counter attack you launch, therefore, should be executed with your ship positioned horizontally or vertically to the starship. Ramming and laser-fire are equally effective. To prepare for an assault, simply move so that your fighter is not in a diagonal path with the starship.

The oversized dot in the forcefield serves as your gun sights. Lasers are fired in the direction it faces.

18.
K.C. Munchkin

K. C. Munchkin is the Odyssey[2] equivalent of *Pac-Man*. The differences between the *Pac-Man* most of us are familiar with and *K. C. Munchkin* are slight:

Instead of four monsters, your "munchkin" needs to elude only three as it races around the corridors. The dots and power pills, referred to as white munchies, and flashing colored munchies move about the maze. The last edible blip in each round accelerates to a pace equal to that of your munchkin.

All told, there are four standard mazes that players can select. In addition to the regular play mode, any of the four playfield configurations can be programmed to become invisible when your munchkin is moving. *K. C. Munchkin* is also capable of generating random maze

layouts, both visible and invisible. By utilizing the keyboard console on the master unit, players can build their own mazes, or simply bastardize one of the original four by adding or deleting any number of walls.

The mechanics of game play, and the strategies you employ, vary slightly from standard *Pac-Man* formula. Since there are only twelve munchies present on any given round (four of which are flashing colored munchies) the "clear - the - majority - of - the - dots - before - going - to - the - energizer" strategy does not apply here. Furthermore, the three monsters display a tendency to move randomly. This, together with the fact that the munchies float about
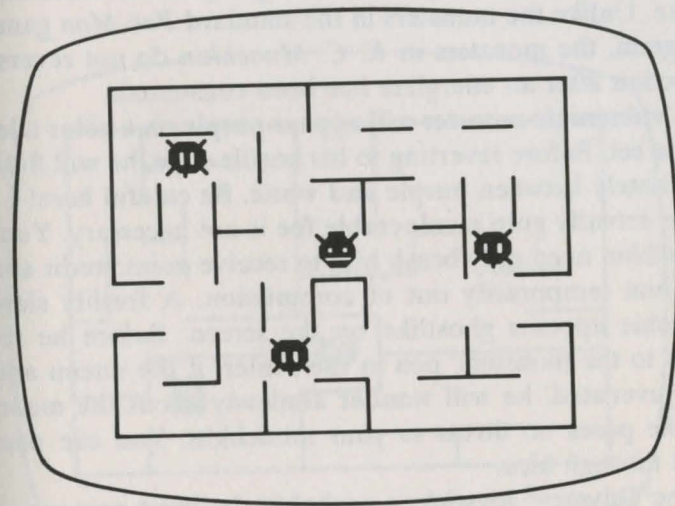
In *K.C. Munchkin,* your munchkin must elude three monsters as it attempts to clear the twelve munchies from an infinite number of maze configurations.

the maze, eliminates the possibility of formulating a pattern (a preset series of movements that allow you to clear the maze safely).

The one technique that works well in *K. C. Munchkin* is the "bait-and-lead-the-monsters-to-the-energizers" trick. Though the munchers move randomly more often than not, they will follow you, once they see your munchkin. Lead as many Munchers as possible toward a flashing colored munchie before consuming it and counterattacking. The munchers tend to ride piggyback on one another. This happens more often at the beginning of each round than at any other time. To capture all three munchers at once, remain motionless until the whole bunch locates your munchkin. When they begin to pursue you, move to an energizer. After eating the flashing munchie, turn and strike. Unlike the monsters in the standard *Pac-Man* game program, the monsters in *K. C. Munchkin* do not reverse direction after an energizer has been consumed.

A vulnerable monster will appear purple on a color television set. Before reverting to his hostile state, he will flash alternately between purple and white. Be careful here!

To actually gulp a vulnerable foe is not necessary. Your munchkin need only brush him to receive point credit and put him temporarily out of commission. A freshly slain munchie appears ghostlike on the screen. Before he returns to the monsters' pen in the center of the screen and is rejuvenated, he will wander aimlessly about the maze, but he poses no threat to your munchkin. You can pass right through him.

The Odyssey² joystick is probably the most responsive home video game control available today. While playing *K. C. Munchkin,* though, I did encounter some lag time in response when making a change of direction. I later discovered that I was moving the control handle too far past

the point of contact. By using a soft touch, quick precise maneuvering is realized. Find the point where the munchkin responds and move no farther than that. The response time when changing direction will be improved significantly.

When you are being chased by munchers, there is no such thing as a close call. As I stated earlier, to consume a vulnerable muncher, your munchkin need only brush it. When the shoe is on the other foot, the Munchers need only brush your munchkin to capture him. This includes the antennae that protrude from your munchkin.

To conquer the invisible versions of *K. C. Munchkin* you must first practice their visible counterparts. After memorizing the playfield layout, the invisible mazes become easier to navigate.
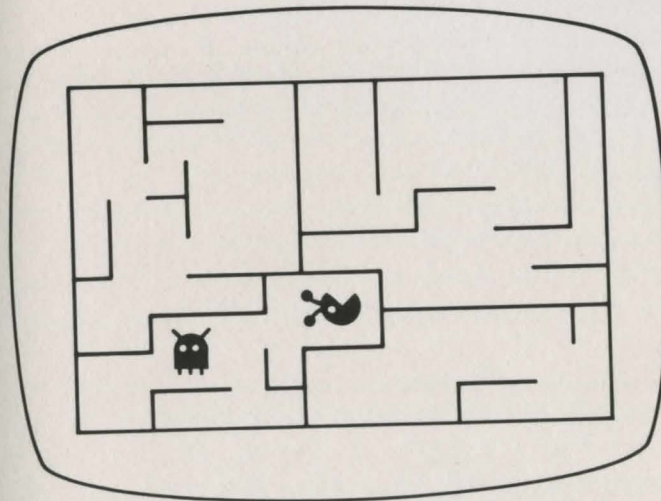
In game No. 4 of *K.C. Munchkin,* the center section of the maze acts as a revolving door, opening and closing each quarter of the playfield in turn.

PART III

Intellivision Compatible Games

PART III

Intellivision Compatible Games

Introduction

The forte of the *Intellivision* system is its sophistication. Yes, the graphics are pretty and the games are quite realistic, but the system does have a drawback or two.

First of all, it's expensive—almost double the price of Atari VCS and Odyssey[2]—and the all-purpose hand-held controllers with interchangeable keyboard overlays are cumbersome. In fact, novices probably spend more time looking at the controllers and game booklets than the TV screen.

Half the battle (or more) of mastering an Intellivision game is memorizing the game rules and familiarizing yourself with the procedures of starting and executing each game. Once this is done, the eye-appealing graphics and Mattel's overall attention to detail are far more enjoyable.

Mattel has been the sole producer of all software for this system, but both Imagic and Coleco will soon offer original and licensed games that are compatible with the Intellivision system.

Imagic's game (as yet untitled) is of the fantasy genre. Coleco has obtained permission to produce home versions of popular arcade games. In this group is *Donkey Kong,* currently the Number One arcade game in America, according to *Play Meter* magazine.

The engineers at Mattel have not been resting on their laurels. Instead, they have been busy perfecting the Intellivision sound synthesis module. This nifty add-on incorporates voice commands that are computer-generated, based on actual game circumstances. And it's not monotone rambling, either. Emotions and changes in tonality are incorporated into both the male and female voices the module generates.

Three games utilizing the capabilities of the voice module will be introduced, namely, *B-17 Bomber, Space Spartans* and *Bomb Squad.*

19.
Space Armada

Space Armada, by any other name, is *Space Invaders* with a couple of devious variations.

Each armada of thirty-two aliens (four rows of eight) employs a broadening array of assault strategies as the game progresses.

True to *Space Invaders,* the game it most closely emulates, each armada marches across the screen in unison. Upon reaching either the left or right side, the group drops one level closer to your laser base and the three bunkers.

As you might expect, the fewer aliens remaining, the quicker the tempo becomes.

Now a look at the unexpected. The generic alien most of us are accustomed to is capable of dropping bombs that

originate only from the center of his body. These second-generation nasties can throw them off from their sides as well. For the sake of additional frustration, Mattel blessed each alien with the power to bombard your laser base, regardless of its position in the formation.

Of the four different types of projectiles the armada hurls down at you, the white wiggly variety, though the least dangerous of the group, are the most common. Your missiles and these "wigglies" pass freely through one another. White bombs destroy your ships on contact.

FLYING SAUCER

ALIENS

PLAYER'S SHIP

BUNKER
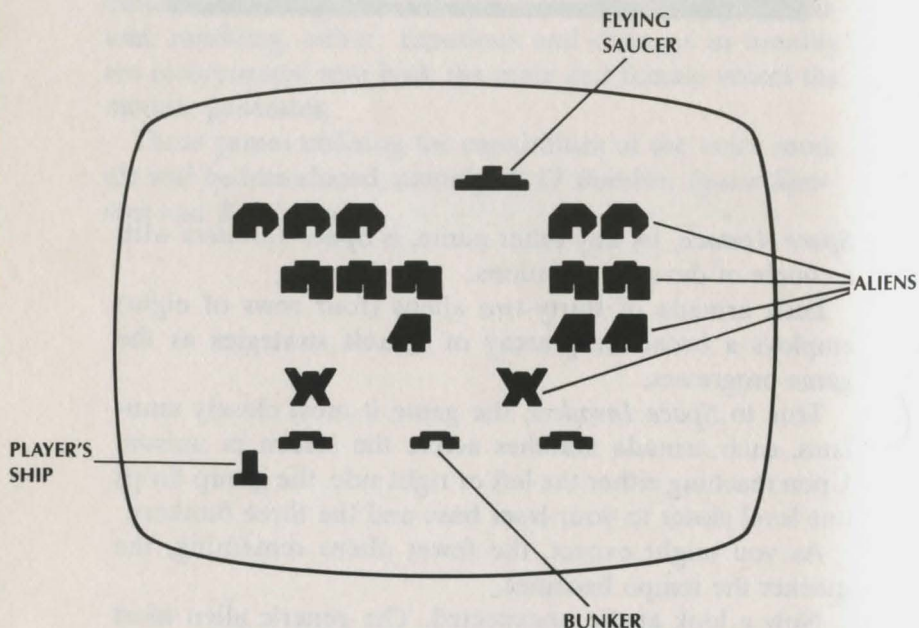
From the third level on, your ship faces not only "wigglies," but javelin-shaped brown bombs as well. Somewhat difficult to detect as they fall through the dark background of the playfield, brown bombs spread out on impact, sending a flash of destruction to the left and to the right. Brown bombs and your shots negate each other upon collision.

Guided missiles and spinners, the other unfriendly munition you will eventually face, have more intelligence than their counterparts. Guided missiles and spinners track your laser base and, on occasion, move toward it at a horizontal heading. This is an undesirable predicament, since it always ends in destruction.

In rising order of potential risk to your laser base, the three methods available for neutralization of guided missiles and spinners are as follows: Shoot them; steer them into a bunker; and, as a last resort, spear them with the barrel of your laser base.

As is true in most versions of *Space Invaders,* destruction by column is the best modus operandi in *Space Armada.* I recommend wiping away at least three columns of invaders before taking pot shots at the lowest row.

When fewer than one dozen invaders remain, a two-for-one strategy can be effectively implemented, since the group travels at an accelerated rate of speed. Instead of simply vanishing when hit, these invaders explode in a reddish burst. "Ground zero" of this explosion is not at the center of the alien's body, but where the fatal blow made contact. In simpler terms, if your shell strikes the left side of the invader's body, the explosion radiates from the left side, its span equidistant from that point. Any other invader who walks into the blast is also consumed by it.

To take out two of your foes with one shot, first observe the approaching direction of the armada. If the group is moving from right to left, shoot for the right side of the invader. Do the opposite when the aliens are moving left to right.

The flying saucers that pass across the screen pose no problem to your laser base. Destroying them is of significant value defensively, especially in later stages of the game. Each time a flying saucer is destroyed, the bunker that has been pummeled the most is restored to perfect condition. Flying saucers are vulnerable to the repercussion of an exploding alien.

To rebuild your ramparts, spare one or two aliens at the end of each armada, thereby providing an opportunity to get a couple of relatively uninterrupted shots off at the flying saucers that may appear.

Unless directed otherwise, each reserve laser base will materialize at the center when it is called to duty. If you wish to station it under either the left or right bunker, depress the appropriate side of the control disc before it appears.

As an aid to sharpening your skills on the latter, more difficult armada, Mattell has provided a practice mode. This provides you with a fresh fleet of six laser bases to do battle against the last armada you face.
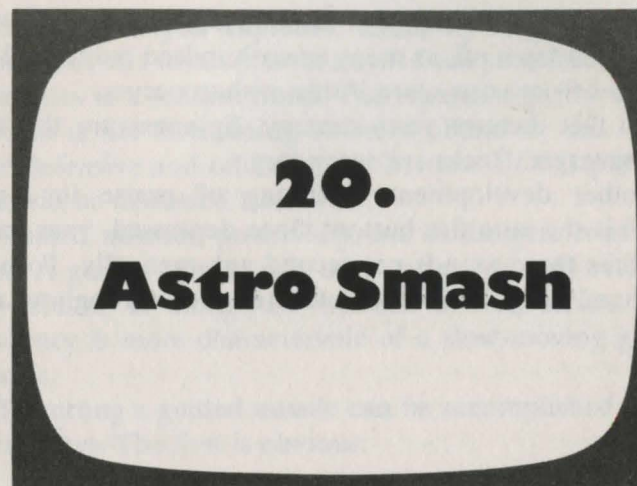
20. Astro Smash

As in other Intellivision games, defense is the key to success in *Astro Smash*.

This game pits your laser base against a relentless stream of descending objects, each of which poses varying degrees of danger. The underlying goal of *Astro Smash* is not simply to score points, but to preserve the game life of each laser base. Careful setting of priorities and defensive maneuvering are your primary goals.

Your opponents consist of large and small rocks, large and small spinners, UFO's and their homing bombs, as well as guided missiles.

The most unique feature of *Astro Smash* is the "missed rock" penalty. Anytime a small or large rock reaches the ground, points are subtracted from your score.

Spinners will destroy your laser base if they are allowed to land. To top it off, as many as six hundred points will be deducted from your score if this mishap occurs.

This fact dictates your strategy. Spinners are the top priority target. Rocks are secondary.

Another development deserving of praise in *Astro Smash* is the auto-fire button. Once depressed, your laser base fires three rounds per second automatically. To prevent hand fatigue, use the auto-fire mode throughout the game.

SMALL
SPINNER

LARGE
ROCK

LARGE
SPINNER

PLAYER'S
SHIP
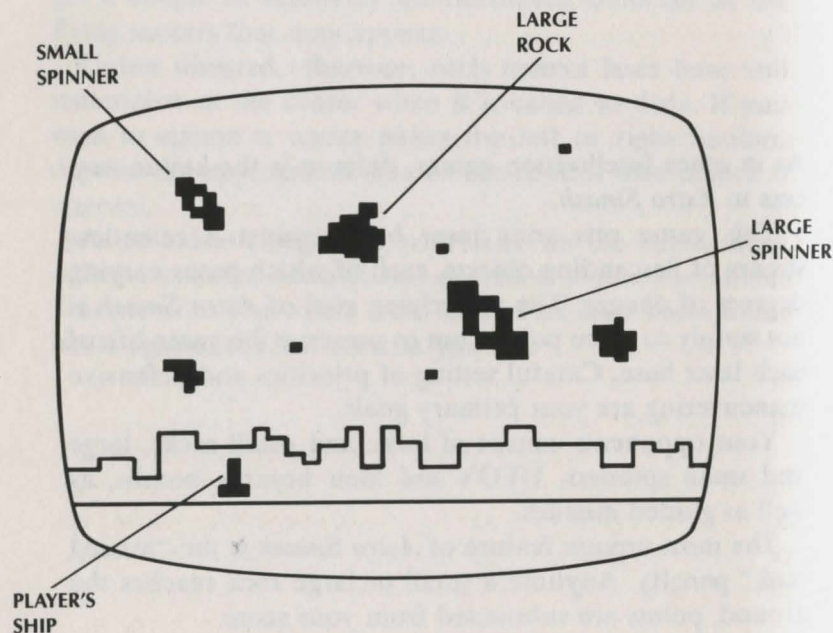
Once any object explodes, either by impact with the ground, or as a result of a direct hit from your laser base, it detonates in a reddish burst. The repercussions of any explosion is life-threatening to *every* object on the screen. The defensive and offensive implications of this phenomena will be discussed later.

Guided missiles, potentially, are as dangerous as spinners. A guided missile will track your ship and occasionally follow it along the bottom of the screen. This tendency is more characteristic of a slow-moving guided missile.

Thwarting a guided missile can be accomplished one of three ways. The first is obvious:

SHOOT IT

If you fail to hit it, dodge it as it nears you. By doing this, you leave the guided missile little time to react and it will inadvertently fall to the ground. If perchance it begins to move toward you along the bottom of the screen, move your ship to the extreme right or left. Just before the missile is about to strike you, hit the hyperspace button. Granted, you may be jettisoned out of the frying pan and into the fire, but then again, this is your only possible means of escape.

The fact that guided missiles track your ship is not all bad news. This tendency can be used to your advantage on a number of occasions.

By moving your laser base, you will, in turn, shift the guided missiles' course. To take out two birds with one stone, steer a guided missile into an oncoming spinner or rock. The impact of a guided missile colliding with any other object on the screen consumes both.

Another way of using each shot efficiently involves hit-

ting the lowest object first. A rock or spinner that is unlucky enough to fall into the reddish cloud of a freshly annihilated object will also be destroyed.

When the fourth round begins, UFO's will begin to patrol the screen on a random basis. Their high value makes them a lucrative target, but your efforts are better spent elsewhere, since UFO's pose no immediate threat if not destroyed.

They do, however, drop a salvo of homing bombs each time they pass across the battlefield. These homing bombs are somewhat slower than the other objects on the screen, a characteristic that makes them relatively easy to evade.

I recommend taking advantage of their tendency to track your ship in much the same way as for the guided missiles. Steer the bombs into other objects on the screen, thereby eliminating not one, but two problems.

During the game, you will be constantly shifting your ship along the bottom part of the screen. Keep in mind that the explosive force each object emanates when it strikes the ground is a deadly blow to your ship. STAY CLEAR!

21.
Armor Battle

Intellivision game cartridges feature striking realism and attention to detail. This devotion to authenticity remains consistent throughout the system's library, and is particularly evident in *Armor Battle,* a combat game that pits two players' tank battalion against each other on one of 240 randomly selected battlefields.

Each playfield will appear with varying amounts of its acreage covered by water, grass, roads, trees and assorted buildings.

Each type of landscape serves as more than just a means of dressing up the battlefield. As you might expect, a tank moves along a road more swiftly than one plowing across a river. The same is true in *Armor Battle.* Each surface

affects the tank's forward and turning mobility in varying degrees.

The fastest ground to travel is the road, followed by grass. The least desirable venue is water. Rivers should be avoided at all costs.

As you might expect, the forests are negotiable, but the trees do tend to impede your progress.

The buildings that appear on the playfield, if used properly, can provide some strategic advantages. More on them later.

Unlike most games, *Armor Battle* does not challenge you to rack up points. On the contrary, your goal is to
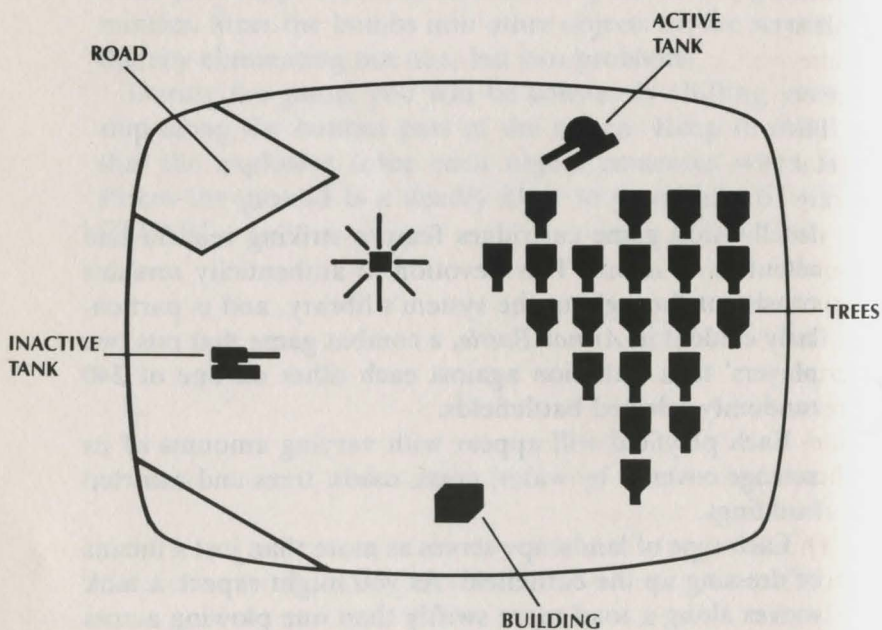
preserve as many of your tanks as possible while depleting your opponent's army to an extent greater than he is able to inflict on you. In other words, whoever has the most tanks at the end of the game is declared the winner.

At the beginning of the war, each player has two of his fifty tanks positioned in the exact same location, regardless of the battlefield configuration.

Of the two tanks present on either side, each player can activate only one at a time. You are able, though, to temporarily put one tank in reserve and activate the other at will as often as you desire.

Each tank can face in one of sixteen directions at any given time. To move to a desired heading, depress the control wheel at the appropriate point. The activated tank will spin in that direction, choosing the shortest possible route (clockwise or counterclockwise, respectively) once the control wheel is released, movement ceases.

The recoil of each shot fired by your tank causes your metal warrior to rebound in one of three directions: straight back, slightly left, or slightly right. Therefore, it is necessary to correct your position after each round launched. The same conditions result after you have been struck by an opponent's shell.

This post-firing dance is generally a hindrance, but in certain situations it becomes a blessing. By firing and depressing the control disk simultaneously, your tank combines its normal rate of movement with the recoil action. These together allow a turn to be made in less than normal time.

The rectangular buildings on the battlefield are solid, and therefore impassable by tank or missile fire. Their only value strategically is to serve as temporary cover.

ROAD

ACTIVE TANK

TREES

INACTIVE TANK

BUILDING

The buildings with windows and the "Covered Bridge" buildings provide both defensive and offensive advantages. All three types of structures are unaffected by missile fire. A shot passing through the opening of a "Covered Bridge" building poses no threat once inside. A player's tank positioned inside either of these two buildings can, however, shoot out at opposing tanks.

This makes your strategy obvious. Take advantage of the shroud of safety provided by the buildings by positioning one of your tanks inside. If you choose to do battle with your other tank, the "garaged" one is now safe.

Since only one tank can be mobilized at one time, protection of the dormant craft should be your chief concern.

I found that a good defense is actually your best offense. Position one of your tanks in a relatively inaccessible area, such as among the trees. To cover the approach that is easiest for your opponent to traverse, drop the one mine that each tank carries. After depositing it, be sure to remember its location. If your own tank strikes it, destruction will result. Now play the waiting game. This is not necessarily the chicken strategy. By hovering near your tank in storage, you are not only dug in but also forcing your opponent to confront you on your turf.

Patience will pay off.

Scoring Log

Date	Game	Location	Score Goal	Score Received

Scoring Log

Date	Game	Location	Score Goal	Score Received

Scoring Log

Scoring Log

Date	Game	Location	Score Goal	Score Received

About the Author

Michael Blanchet was born November 28, 1959, in Summit, New Jersey. He grew up in Far Hills, New Jersey, and attended Bernard's High School.

Originally a pinball fanatic, he can remember spending hundreds of dollars in one week playing these games. One summer he graduated to video games when his father brought home a Hewlett-Packard educational computer. Since then, video games have been Michael's passion and source of employment. He has managed arcades, which has given him the opportunity to acquire intimate knowledge about the workings of the machines. During this period he also improved his playing technique.

Michael is presently the vice president of operations for a New Jersey-based video games concern and has written a nationally syndicated column on video games. He is the author of the best-selling *How to Beat the Video Games.*

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