

New "Missile Command"™
T-shirt
Available.



Exciting new Missile Command action T-shirts are now available for purchase from Atari distributors.

The bold graphic design is printed in dazzling full color depicting the spectacular action of this new video game that's a runaway hit all over the country.

The shirts are a durable cotton/polyester blend for easy washability and long wear.

These exciting shirts are ideal for location prizes, giveaways, advertising premiums, and for promoting game play.

Missile Command T-shirts can be ordered in small, medium, large and extra large and various children's sizes. Because supplies are limited, please place your orders as soon as possible.

# Atari Sponsors Missile Command Tournament at the 1980 AAU/USA Junior Olympics



The city of Santa Clara, California was the recent host city for the 1980 AAU/USA Junior Olympic Games. The event, drawing athletes from throughout the world, was held on the campus of the University of Santa Clara. Over 2500 athletes ages 8-18 participated in this annual event held August 12 thru August 17.

To provide a recreational break from the daily events, an Atari Game Center was installed at Benson Memorial Center at the University. Ten of Atari's most popular video games including SPRINT 2, ASTEROIDS, ATARI FOOTBALL and new MISSILE COMMAND were set on free play, providing the Junior Olympians a rare opportunity to experience the excitement and challenge of these top amusements.

In keeping with the competitive spirit of the Olympics, Atari also sponsored a Missile Command tournament. All Junior Olympic athletes were invited to participate, and play for top scores and prizes on Thursday night, August 14, and Saturday night, August 16.

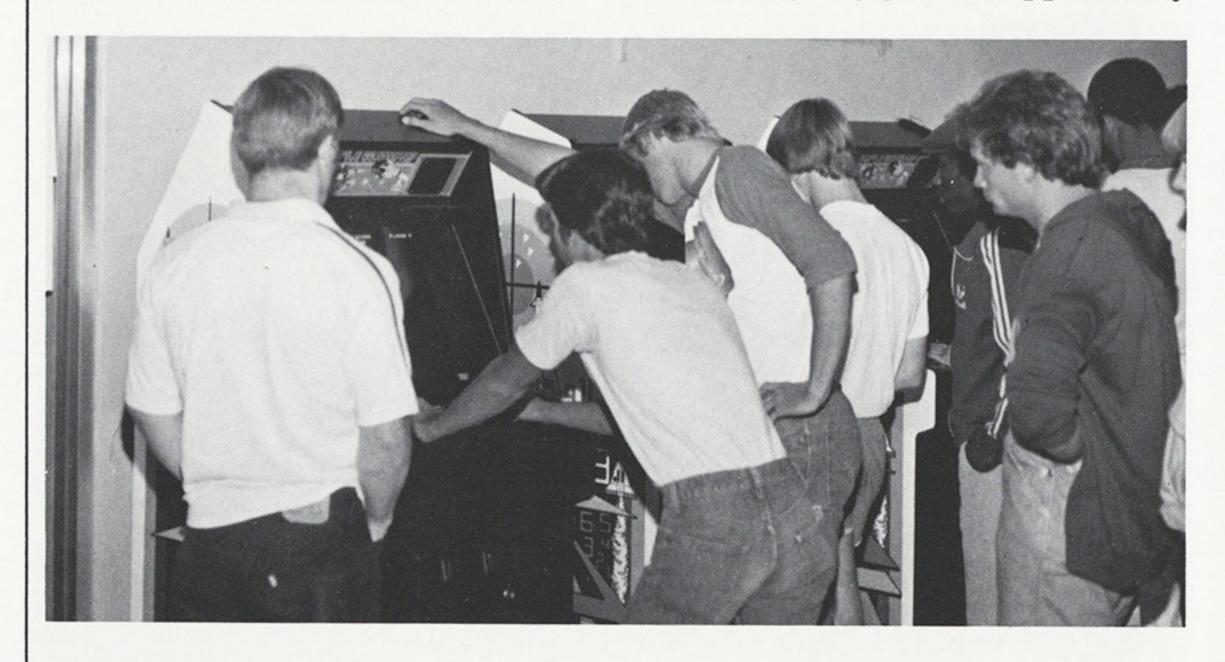
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## Missile Command Tournament continued

The following top scorers in the two-night tournament were awarded the Missile Command Junior Olympics Gold, Silver and Bronze Medals:

Gold: Brian Quist, age 18, Oakridge, Tennessee 22,990 points Silver: Chris Erdman, age 15, Long view, Washington 19,985 points Bronze: Donald Fischer, age 15, Makakilo, Hawaii 18,978 points Top contestants also received Atari's Video Computer Systems<sup>TM</sup>, T-shirts, belt buckles and pens.

Tom Petit, one of Atari's Regional Sales Managers, who supervised the tournament commented, "The athletes really enjoyed the opportunity to play these Atari games and to compete in the Missile Command Tournament. And, since all the students who were in Santa Clara for the Junior Olympics are in the age group that plays our games, it was a great opportunity to broaden the awareness of Atari, especially new Missile Command."





#### New Asteroids™ High Score

Shawn Davies, 19, of Murray, Utah is the new ASTEROIDS<sup>TM</sup> record holder. On July 23, 1980 he played one game of ASTEROIDS for 21 hours and 50 minutes, scoring 10,000,000 points! When Shawn quit playing he had 16 ships remaining.

Bill Anderson, the operator of the T's-N-Tilts location where Shawn played his record-breaking game of ASTEROIDS, gave Shawn \$100, a couple of T-shirts, and a hat. Atari sent him an ASTEROIDS T-shirt as a reward for his stamina.

"I learned the technique from a friend of mine, Steve Lefler. He is a real expert ASTEROIDS player," the ASTEROIDS pro commented. Shawn estimated that he spent approximately \$300 developing his skill before trying for the record-breaking 10 million point mark. He plans on attempting to break his own record in a few weeks, but this time Shawn hopes to be accepted into the Guinness Book of World Records.

Good luck, Shawn, from all of us at Atari.

#### Sue Elliott Attends Australian AMOA

Sue Elliott, International Sales Manager for the Coin-op Division, recently attended the Australian AMOA at Surfers Paradise in Queensland, the Sunshine State.

The show was attended by Australian operators, distributors, and manufacturers of video and pinball games and juke boxes. The attendees were most enthusiastic about the products on display. The largest of the exhibitors, Leisure and Allied Industries, the Atari

distributor in Austrailia, occupied over half of the exhibition space.

The "hottest" game in Australia right now, as it is throughout the world, is Asteroids™. Leisure and Allied also exhibited new Missile Command™ to the Australian trade for the first time, and it created quite a sensation. Judging from the excellent reception, Missile Command is going to be another big success for operators throughout Australia.

## Atarians to Compete in Coin Slot Golf Tourney



The 1980 Coin Slot Magazine Golf Tournament will be held at the Gleneagles Golf Club in Scotland on September 18 and 19. Atari will be represented on the golf course by Gene Lipkin and Joe Robbins, CoPresidents of Atari's Coin-Op Division, and Skip Paul, Vice-President, General Counsel. Atari will be providing promotional customized golf tees and hand towels to all entrants in the tournament.

We wish Gene, Joe and Skip the best of luck.

## **Promotions** for Profits

#### **Arcade or Street Location:**

Draw in some new players by featuring a "School of the Month" promotion. Salute a community college or high school who agrees to distribute free game or discount coupons to their students. For example, distribute coupons to students in a computer programming or electronics class, inviting them to "experience the latest in electronic computer games."

You can also use this idea to feature a "Business of the Month" for any office or company that distributes coupons to all employees.

This promotion has been used in other industries and has been very successful in attracting new customers. If you have a promotional idea, please share it with others in the amusement games business. Send your idea to the Coin Connection and receive a gift from Atari.

#### Did You Know...

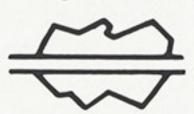
In the continental United States, six out of every ten persons over the age of 13 have played a coin-operated video or pinball game at least once!

This is a finding from an Atari study conducted by Consumer Response Corporation earlier this year. Almost 1,100 households were randomly dialed to comprise the national sample.

#### **TECHNICAL TIPS**

#### **Asteroids™**

#### Y (vertical) output missing pieces



Place game in Self-Test. On the display the lines running left to right are good, but the lines running from top to bottom are broken up. The problem is in your Y-output circuit. Could be a bad D-to-A converter Bll or Y-position counters J9, H9, F9.

#### X (horizontal) output missing pieces



In Self-Test, the lines running left to right are broken up, but the lines running top to bottom are good. The problem is in your X-output circuit. Could be a bad D11 (AD561) or bad X-position counters E9, D9, C9.

#### Test mode ok, but won't go into game play.

Problem could be in the NMI circuit to the Processor Pin 6. In Self-Test Pin 6 of MPU should be high. In game play, should be high with low pulses. If game won't go into play mode, problem probably is C5 counter or L10 input multiplexer.

### Bad graphics (alphanumerics, ships, rocks)



Place game into Self-Test. Look at lines. If lines running top to bottom are bad, look at your Y-output circuit and position counters B11, H9, J9, F9. If lines running left to right are bad, you have an X-output or position-counter problem D11, E9, D9, C9.

## Asteroids: one side brighter than the other



Problem in Scale 0-3 circuit. Could be bad Latch K7 or wrong resistor value in your Scale 0-3 resistor network. Correct values are: R35 1.2K, R36 2.2K, R37 4.7K, R38 10K; or Q7, Q9 bad.

#### Letters and asteroids shaky or shadowed



Problem could be bad Op-Amp C12 or A12. If either Op-Amps are N947s, replace with TL082. Problem could also be bad or missing inductors L14, L15 (90 uH).

#### **Bad** ship fire sound

Check power supplies + 12, +5 for ripple. If power supplies okay, could be bad M10 or Q1, Q5.

#### Oversized characters, letters too big



Problem in your timer circuit could be bad M7, M6, E7.

## Reset problem where game won't go into game play but goes into Self-Test

Bad graphics in Self-Test

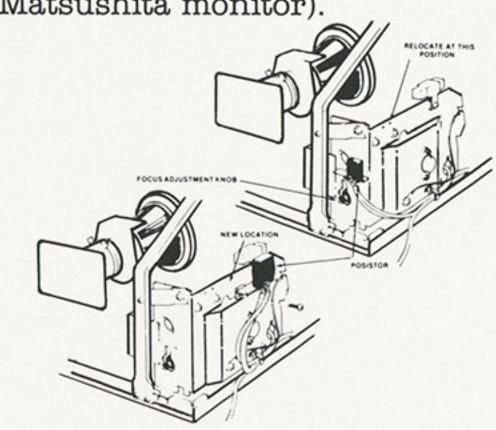
If Pin 40 of MPU is pulsing, then put the game into Self-Test. If it stops pulsing and the graphics are bad, problem probably is in state machine PROM C8.

#### Missile Command™ Cocktail

WARNING! There may be a hazard of electrical shock at the black posistor just above the focus adjustment knob at the right-hand side of the monitor chassis (as viewed from the rear). To avoid this potential hazard, the posistor should be relocated away from the focus control in the existing hole as shown. Use the same screw (screw will form its own threads).

Please take care to ensure that this modification is implemented as soon as possible.

This affects Cocktail MISSILE COMMAND from S/N 001-449, 453-455, 462-464, 468 and 681 (Matsushita monitor).



#### Missile Command

At location J-7 on the main PCB, you may find a part with #CO14362 marked on it. This is a 74LS32 as called out in the schematics. Vendor delivery problems required that we use parts which were labeled for use in a different application.

#### Operators of the Eighties September Profile: Mike Shepard, Seattle, Washington

#### **Getting Started**

After nine years of experience as a distributor technician, Mike Shepard decided to take on his own route operation. A little less than a year ago, Mike purchased a route that had a total of 50 pinball and jukebox units in operation. His business is geared toward smaller suburban areas and his locations were fairly established in their ways of dealing with games. Today, A&S Amusements is a successful operation that continues to find ways to get ahead in this volatile business.

#### **Moving Ahead**

To expand this operation, Mike first began to add videos to his inventory and acquire new locations. In the past year his total number of units have more than tripled and he now has a mix of 65% videos and 35% pinballs and jukeboxes. Now his monthly revenue shows an increase of more than 300% above the previous year.

In order to stay ahead in this business, Mike emphasizes the need for versatility. Resistance to change along with constant demands were barriers in many of his established locations. Many location owners were against changes in the game's vend or did not want to alter their former product mix. Mike took strides to educate these locations, making them aware of the increased profits realized by changing their methods. Because Mike is a con-

scientious businessman, he feels it is critical to develop a strong trust between himself and his customers. As a result, they are more willing to accept some progressive and new operating practices.

Mike's company has developed a reputation for quality equipment. His games are kept in top working condition with little, if any down time. Problems are repaired or replaced on location, whenever possible. With Mike's technical background, he manages to meet the primary service needs of almost 200 pieces of equipment.

#### Attention!

For the past few months we have featured an Operator of the Eighties in the Coin Connection. We hope that other operators have found these articles as interesting and informative as we have.

We look at the Operator of the Eighties column as one way to talk in-depth with a wide variety of operators. Atari is interested in learning about your amusement games business. If you are willing to share your experiences with other Coin Connection readers, please write to: Editor/Coin Connection, 1215 Borregas Avenue, Box 427, Sunnyvale, CA 94086.

#### **Looking Forward**

From his observations of the industry in the past ten years, Mike sees changes coming in the near future that many people believe will dictate the direction of this industry.

- Smaller operations are, and will be, severely impacted by the rising costs of business. Equipment purchases are not only more selective, but because of increased prices, they are less frequent. Already in this industry, like many other volatile industries, smaller companies are being bought out by larger businesses due to the demands of staying current.
- For any operator, it is crucial to seek new ways of increasing the return on investments and minimizing operating costs. One way to do this is to have an industry-wide vend change on coin-operated games. Yet, for many regions of the United States, 50¢ pricing is faced with too much resistance due to slower economic growth. Through combined efforts of all sectors of this industry, a vend increase may become a reality in the near future.

A&S Amusements is representative of many operators who have experienced similar problems as well as operating successes. An important point issued here is for operators to evaluate their own business carefully. Selecting the proper mix of equipment is important, yet operators must also select the right type of customer as well. Locations that have potential must not place unreasonable demands on the operator, and should be willing to cooperate with changes that will promote growth for both their businesses.

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## How to Increase your Missile Command™ Earnings

What is the high score on your Missile Command game? 5,000, 10,000, 20,000 points? That's too low! Your players are probably not getting their money's worth, and that means you aren't getting enough quarters in the cashbox.

After three or four weeks of practice, an average player's score on Missile Command should be about 30,000 points; an excellent player should be able to achieve over 100,000 points.

A score of 146,000 has been reported by a local arcade after Missile Command has been in the location for only two weeks. After many months of practice, only a few Atari engineers are able to achieve scores of over 300,000 points! One engineer even scored 608,000! It proves that Missile Command remains a constant challenge. Even for very skilled players!

Not all players have the skill required to play a 300,000 point game of Missile Command. Your players may need some extra incentive to continue to develop their Missile Command skills.

Check the scores on your Missile Command game at the end of every day for a week. If Missile Command has been in

your location for at least three weeks, and your highest-scoring players are not achieving at least 30,000 to 40,000 points, the game options may be set too difficult for your location's clientele.

#### More options means more profits.

Take advantage of the many operator-selectable options available on Missile Command. A bonus city can be awarded every 8,000 points (instead of the factory-set 10,000 points). This will give players a better chance of obtaining higher scores. As a player's score gets higher, Missile Command becomes more and more exciting. The challenge of the game increases as the colors of the attack waves change.

If scores get too high, and game times get too long, the operator-selectable options can then be set to be more difficult to maintain the challenge. The option can be set to award a bonus city at 10,000, 12,000, 14,000 up to 20,000 points. Or you can set Missile Command to start with as few as four cities or as many as seven.

Maximize your Missile Command longevity and profits by taking advantage of the options available.