

## ASTRO ZAP 2000 BY GEORGE MOSES

ASTRO ZAP is similar to the commercial arcade game "SPACE ZAP" by Midway, only you don't need a quarter to play. It will keep score for up to four humans, using 1 hand control for each. When you RUN the program, input the number of players from the keypad. When the game starts you will use only the joystick to fire back at the invading missiles. No trigger is necessary. You will receive 250 points for each missile you eliminate. A Kamikaze will orbit your space fortress at random intervals. You must shoot it down before the second orbit or it will dive into you. Each human begins with three bases and will be awarded a bonus base every 10,000 points. As points accumulate the missiles will travel faster until you can no longer keep up with the onslaught. If the missile hits the base there will be a terrible explosion which goes on and on and on. If you get sick of watching yourself explode, pull the trigger to abort the fireworks. This will bring up the next player's turn. The only other use of the trigger is at the GAME OVER display if you wish to start a new game.

**IMPORTANT.** Never put any spaces in this program unless you see the "■" symbol. Any spaces you see are only in there for clarity. A word of caution about the letter "O" (as in OH). It is used as a variable in lines 21, 22, 101 and 510. Use care not to confuse it with the "0" (as in zero.) Also use the computer command word "INPUT" in line 500 instead of typing the word out. You should have 47 bytes of memory left, a minimum of 40 bytes are needed to handle the scorekeeping strings.

```

1 NT=0;GOTO X
2 FOR K=1TO B;NEXT K;RETURN
3 TA=44;TB=53;TC=67;RETURN
4 VA=6;VB=6;VC=6;RETURN
5 CX=M;CY=N;RETURN
6 NV=T;MO=0;NM=1;RETURN
7 N=0;M=RND(30);RETURN
20 BOX 0,0,24,18,1;BOX 0,0,24,12,3;BOX
0,0,18,18,3;BOX 0,0,20,1,3;BOX 0,0,1,14,3
21 FC=149;BC=8;C=1;CY=32;CX=-71;PRINT
#1,@(O);IF @(F)=0PRINT #1,"00",
22 PRINT #1,@(F);IF @(O)>4C=@(O)+J
23 IF @(P)=10@(P)=0;GOSUB 4;GOSUB
3;MO=44;L=1;FOR A=1TO
6;B=T;CY=0;CX=-26;PRINT
"■BONUS■BASE";MO=44;GOSUB 2;MO=89
24 IF B=T■B=S;BOX 0,0,60,8,2;GOSUB 2;
NEXT A;↑;@(H)=@(H)+1;
@(Q)=@(Q)+1;GOTO 511
25 IF L GOSUB 4;MO=T;GOSUB 3;GOSUB
U;L=L-1;↑;B=V;GOSUB 2;IF L GOTO 25
26 N=N+1;IF N=M GOTO 70
27 IF B=V GOSUB 2
30 GOSUB 3;GOSUB 4;C=ABS(C);E=RND
(4)+93;MO=T;IF E=94B=-40;GOTO 60
31 IF E=95B=64;C=-C
32 IF E=96B=40;C=-C;GOTO 60
33 IF E=97B=-64
50 CY=0;FOR A=B TO B+6STEP
C;MO=A;CX=A;TV=E;IF JX(F)IF
JY(F)=0XY=0;LINE ABS(A)×JX(F),0,3;IF
PX(A,0)=0GOTO R
51 NEXT A;GOTO S

```

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60 FOR A=B TO B+5STEP
C;MO=A;CX=0;CY=A;TV=E;IF JY(F)IF
JX(F)=0XY=0;LINE 0,ABS(A)×JY(F),3;IF
PX(0,A)GOTO R
61 NEXT A;GOTO S
70 B=V;GOSUB 3;GOSUB 4;MO=20;
VR=4;VF=50;M=0;N=30;D=-10;E=0
75 IF M■D=D+ABS(M)+(-M)×2
76 IF N■E=E+ABS(N)+(-N)×2
95 GOSUB 5;PRINT "+ ";GOSUB 5;PRINT "× ";GOSUB
5;PRINT "■";FOR A=1TO 2;XY=0;LINE
0,30×JY(F),3;XY=0;LINE 33×JX(F),0,3;IF
PX(M,N)GOSUB 7;GOTO R
96 NEXT A;M=M+D;N=N+E;IF N=30E=E+3
98 IF M=0IF N=0GOTO S
99 GOTO 75
100 GOSUB 6;FOR A=2TO 10STEP 2;BC=RND
(T);FC=BC-4;BOX CX-6,CY,A,A,3;NEXT A
101 BOX 0,0,W,10,2;BOX 0,0,10,88,2;↑;@(F)=@(F)+T;IF
@(F)=V@(F)=0;@(P)=@(P)+1;@(O)=@(O)+1
110 GOTO 20
200 GOSUB 6;FOR A=2TO W;CX=RND
(A)-A+2;BC=RND(T);FC=BC-4;
CY=RND(A+2)-A+4;XY=0;LINE RND
(W)-81,RND(88)-45,3;TV=46;NV=RND(2)+1
201 IF TR(F)=0NEXT A
211 L=1;@(H)=@(H)-1
215 H=H+1;IF H>G+G■H=G+1
216 CLEAR;FOR A=G+1TO G+4;IF @(A)=0NEXT
A;BC=0;FC=149;CY=-8;CX=-28;
PRINT "GAME■OVER";↑;GOTO V
220 ↑;NEXT F;GOTO Y
300 FOR MO=T TO 5STEP-1;A=1;NEXT MO;IF
L=2FOR MO=5TO T;A=1;NEXT MO
301 RETURN
500 FOR A=0TO Z;@(A)=0;NEXT A;FOR A=17TO
20;@(A)=2;NEXT A;CLEAR;CY=0;PRINT "INPUT
#■PLAYERS";G=KP-48;IF (G<1)+(G>4)RUN
501 PRINT#2,G;FOR A=G+1TO G+G;@(A)=3;NEXT
A;H=G+1;L=2
510 CLEAR;FOR F=1TO
G;O=F+8;P=F+12;Q=F+Z;GOSUB 7
511 CY=40;PRINT
"■PLAYER";#2,F;J=@(Q)-1;CY=-32;PRINT
"■BASES";PRINT #4,@(H),
512 IF @(H)=0GOTO 215
514 GOTO 20
1000 CY=40;CX=36;PRINT "SCORE";FOR A=1TO
G;CX=24;PRINT #1,"#",A,"■",@(A+8);IF
@(A)=0PRINT #1,"00",
1010 PRINT #1,@(A);NEXT A
1020 IF TR(1)RUN
1030 GOTO 1020

```

Because all memory is used up the variables R through Z must be loaded as direct commands from the keypad to make this program work.

Type the following without a line number:

```
R=100;S=200;T=250;U=300;V=1000;
W=160;X=500;Y=510;Z=16;RUN
```

WHEN YOU PRESS GO your program should run perfectly. To save the program on tape just use :PRINT GO with your recorder running on RECORD.

LOWERCASE = 1-BYTE KEYPAD WORDS. UNDERSCORES = SPACES. 1789 CHARACTERS

```

1 .10x165350020010x16535000006+5634560420060
667x1x27653210x1653500200102345600067x1__x1__
x1765+45600700x1
5 NT=0;@(4)=0;@(5)=0;BC=160;FC=4;goto 10
6 CX=-77;return
7 for Q=1to 150;next Q;return
8 box B,C,5,3,2;box 0,D,5,3,2;box -B,C,5,3,2
;box B,C,5,3,@(0);box 0,D,5,3,@(1);box -B,C,5
,3,@(2);@(P+3)=@(P+3)+@(3)=1
9 CY=-26;CX=44;print "VIS",#2,@(4);CX=38;pri
nt "HOME",#2,@(5);return
10 clear ;S=21;X=-3;for A=-35to -6;X=X+2;box
X,A,S,1,1;box -X,A,S,1,1;next A;box 58,-4,S,
2,1;box -58,-4,S,2,1;for A=-3to 26
20 box X,A,S,1,1;box -X,A,S,1,1;X=X-2;next A
;A=-32;line 0,-34,0;line 58,C,2;line 0,25,2;1
ine -58,C,2;line 0,-34,2;box 0,A,11,3,1
30 box 0,-34,3,1,2;box 0,A,5,3,2;box 0,-35,1
,1,2;box 0,-37,15,3,1;box -B,C,7,5,2;box B,C,
7,5,2;box 0,D,7,5,2
40 T=7;for Z=-24to -4step T;box 0,Z,T,13,1;T
=T-2;next Z;box C,0,9,5,1;box 0,0,7,7,1
50 CX=-S;print "*S*I*T*H*";I=0
60 I=I+1;CY=-24;gosub 6;print "ING_",#1,I;fo
r P=1to 2;for Z=0to 3;@(Z)=2;next Z;CY=-40;go
sub 6;if P=1print "VIS",;goto 70
65 print "HOME",
70 print "_UP_",;gosub 8;for D=0to 2;S=0;CY=
-32;gosub 6;print "OUTS",#2,D
72 if I=7if P=2if D=0gosub 800
75 CY=32;gosub 6;print "STRIKE",#2,S,"
-----
<";&(20)=0
80 NT=-1;if TR(P)goto 400
82 if &(18-P)=0goto 80
88 for CX=27to -21step -18;print "↑",;if TR
(P)=0next CX;goto 400
90 H=CX-18;H=(H=15)x4+(H=3)x3+(H=-9)x2+(H=-2
1);if H=0goto 500
95 gosub 700;if rnd (3)=1CY=32;gosub 6;print
"FLY BALL CAUGHT!";gosub 7;goto 500
97 if H=4&(21)=15;&(19)=20;&(20)=150;for Q=1
to 999;next Q;&(20)=0;&(21)=0;&(19)=0
100 for Z=1to H;for Y=3to 1step -1;@(Y)=@(Y-
1);next Y;@(0)=2-(Z=1);gosub 8;NT=5;MU=64;NT=
0;next Z
120 if I>8if P=2if @(4)<@(5)goto 600
130 S=0;goto 75
400 print " ";S=S+1;&(22)=-1;&(16)=60;&(17)
=71;&(18)=85;gosub 7
410 if S<3&(22)=0;goto 75

```

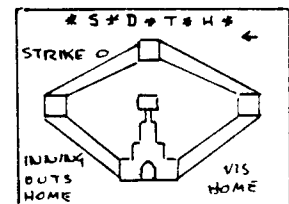
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500 &(17)=71;&(18)=85;&(22)=-1;for Z=60to 15
0;&(16)=Z;next Z
510 &(22)=0
520 next 0;if I=9if P=1if @(4)<@(5)goto 600
530 NT=15;gosub 7;&(20)=129;for Z=-24573to
24562;MU=X(Z);next Z;gosub 7;NT=0
550 next P;if (I<9)+@(4)=@(5)goto 60
600 CY=0;CX=-24;print "GAME_OVER
610 STOP
700 XY=0;for Z=0to -30step -1;line 0,Z,3;nex
t Z
710 NT=4;MU=80;NT=0;V=rnd (11)-6;X=0;gosub 7
;NT=-1;&(21)=-1;&(23)=-1;&(19)=10-2xH;for Y=-
26to 46step 4;X=X+V
720 box X-V,Y-4,1,1,3;box X,Y,1,1,3;next Y;&
(21)=0;&(23)=0;&(19)=0
799 return
800 CY=32;gosub 6;print "7TH_INNING_STRETCH!
";gosub 7;NT=8;for Z=-24573to -24471;MU=X(Z);
next Z
810 gosub 7;gosub 7;NT=0;return

```

**BASEBALL** A 2-player, 9-inning game. Player 1 is visitor and bats first. Player 2 is home and pitches first. Pitcher uses either trigger or joystick to start each pitch. At the top of the screen, an arrow will move quickly under a series of letters plus asterisks. The batter, using his trigger, tries to stop the arrow under a letter (single, double, triple, and home run), because stopping under an asterisk yields an out. If the arrow goes all the way without stopping, it is a strike. A hit may be caught by the computer. All runners advance on hits, but will not tag up on fly balls. Extra innings will be played if the score is tied after nine innings. After the program is loaded, add the following without a line number - B=56; C=-5; D=23

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LOWERCASE = 1-BYTE KEYPAD WORDS. UNDERSCORES  
= SPACES. 1767 CHARACTERS

```

6 S=0;A=400;B=700;C=0;X=0;Y=0;U=0;V=0;G=5;I=
0;H=300;clear;BC=0;FC=117;J=32;M=44
9 for W=0to 3;gosub 150+W;next W;gosub 800;g
osub 705
20 for N=1to 4;gosub H+N;@(N)=K;@(N+4)=L;gos
ub A;next N;box X,Y,4,4,2
30 for W=1to 5;if ABS(X)<24if ABS(Y)<20goto
38
34 for N=1to 4;if ABS(X-@(N))<8if ABS(Y-@(N+
4))<5if PX(@(N),@(N+4))gosub 780;gosub H+N;@(N
)=K;@(N+4)=Lgoto 40
36 next N;goto 39
38 if ABS(X)<20if ABS(Y)<1goto 120
39 if (ABS(X)>28)+(ABS(Y)>0)goto 56
40 for P=-1to 1step 2;if PX(X+3*P,Y)goto 500
42 next P;X=X+JX(1)*R
44 for P=-1to 1step 2;if PX(X,Y+3*P)goto 550
46 next P;Y=Y+JY(1)*R;goto 62
56 if PX(X,Y)=0MU=59;MU=61;C=2;S=S+1;gosub 8
00;I=I+1;if I=60gosub 110;S=S+8;gosub 800;M=M
-1;J=J-1;I=1;for D=1to 3;gosub 150+D;next D
57 if J=27J=28;M=40
58 X=X+JX(1)*R;Y=Y+JY(1)*R
59 if ABS(X)>52X=-X+(R*(ABS(X)+X))
60 if ABS(Y)>36Y=-Y+(R*(ABS(Y)+Y))
62 box U,V,4,4,C;box X,Y,4,4,3;C=3;U=X;V=Y;M
U=52;E=E-1;if E=16BC=88
72 if E=0R=2
75 next W
80 for N=1to 4;K=@(N);L=@(N+4);box K,L,8,4,2
;goto 200+N*2
90 @(N)=K;@(N+4)=L;next N;goto 30
110 BC=0;R=4;E=48
112 NT=9;for Z=1to 2;MU=68;MU=76;MU=68;MU=73
;next Z;for Z=1to 2;MU=68;MU=75;MU=68;MU=72;n
ext Z;MU=68;MU=73;NT=3;return
120 if PX(X,Y)=0C=2;gosub 110
125 goto 58

```

#### QUADRON (One Player)

This game challenges you to defend a four-walled energy fortress by pursuing and eliminating four monsters who are slowly impinging on the walls and intent on breaking through.

If a monster breaks completely through a wall (i.e. creates a "hole" or space the width of a wall) the fortress is destroyed. You start the game with a complement of four fortresses. The game ends when all four have been destroyed.

To eliminate a monster, you must move the joystick-controlled blip (it is in the center of the fortress when the game begins) toward the monster and "touch" it with the blip. The monster will then disappear. However, another will take its place on the same side of the wall at a distant starting point.

You will have a limited supply of energy with which to pursue the enemy. When you are running low on energy, the background color of the playfield will turn red as a warning.

This means you will soon have to return to the fortress and eat one of the energy dots located inside. (to eat a dot move the blip over the dot) Otherwise, your speed will be cut in half and it will be very difficult to keep up with the monsters.

Eventually, you will eat up the eight energy dots. To gain a new supply of these, it is necessary to eat all sixty of the bonus dots located near the four edges of the playfield (You will also receive sixty new bonus dots) When you accomplish this, the challenge will increase as the four monsters' starting points will move slightly closer to the fortress.

```

150 for Z=-1to 1step 2;box 24*Z,0,4,28,1;box
0,16*Z,44,4,1;box 24*Z,0,4,4,2;box 0,16*Z,4,
4,2;next Z;return
151 for Z=-1to 1step 2;box 16*Z,0,2,18,1;box
16*Z,0,2,14,2;box 12*Z,0,2,18,1;box 12*Z,0,2
,14,2;next Z;return
152 for Z=-52to 52step 104;for T=-28to 28ste
p 4;box Z,T,2,2,1;next T;next Z;return
153 for Z=-36to 36step 72;for T=-28to 28step
4;box T,Z,2,2,1;next T;next Z;return
202 L=L-1;gosub A;if L=16gosub B;gosub H+N
203 goto 90
204 L=L+1;gosub A;if L=-16gosub B;gosub H+N
205 goto 90
206 K=K-1;gosub A;if K=26gosub B;gosub H+N
207 goto 90
208 K=K+1;gosub A;if K=-26gosub B;gosub H+N
209 goto 90
301 K=(rnd(4)-3)*11+5;L=J-rnd(3);return
302 K=(rnd(4)-3)*11+5;L=J+rnd(3);return
303 K=M-rnd(3);L=(rnd(4)-3)*8+4;return
304 K=-M+rnd(3);L=(rnd(4)-3)*8+4;return
400 box K,L,-1,8,1;box K+3,L,1,4,3;box K-4,
L,1,4,3;box K,L,-1,4,3;return
500 if JX(1)=-PX=X+JX(1)*R
510 goto 44
550 if JY(1)=-PY=Y+JY(1)*R
560 goto 62
700 box K,L,8,4,2;for Z=1to 8;FC=8;MU=56;MU=
52;FC=117;next Z;gosub 150
705 G=G-1;CX=-40;CY=40;print #1,S;if S=0gosu
b 110;for Z=1to 8;next Z;CX=-24;CY=0;NT=0;pri
nt "GAME_OVER";NT=26;MU=61;NT=0;if KPgoto 6_R
UN
710 return
780 box @(N),@(N+4),8,4,2;S=S+2;C=2;gosub 15
0;for Z=1to 4;MU=64;MU=61;next Z
800 NT=0;CX=40;CY=40;print #1,S,#1,"00";NT=3
;return

```

In summary, then, the game action consists of eliminating monsters to protect the fortress and eating dots to ensure your energy supply.

There are three basic routes you can follow in moving about the playfield.

1. Moving around the outside perimeter of the walls.
2. Passing through the inside of the fortress via the four openings in the walls.
3. Moving off one side of the playfield and appearing on the opposite side.

Use these alone and in combination to pursue monsters and eat dots.

#### SCORING

Monster.....	200 points
Bonus Dot.....	100 points
All Sixty Bonus Dots Eaten.....	800 points

#### HAND CONTROL

Joystick.....	Move the stick in the direction you wish to move the blip
Trigger.....	No Function
Knob.....	No Function

The number of fortresses you have remaining is displayed in the upper left-hand part of the screen, while the current score is shown in the upper right-hand corner.

To start a new game, press any key (except "R")

## THE GAME PLAYER

goes fishing ...

### SEA DEVIL Bit Fiddlers

Starfish, Octopi, Jellyfish, even submarines, are but a few of the underwater foes the brave game player must square off against in SEA DEVIL, the first cartridge released by Bit Fiddlers.

We were immediately impressed with the rich colors used in the graphics. The blue background, representing water, is very kind to the eyes. The underwater creatures are multi-colored and animated (cartoon-like), though one needs a very large video screen to appreciate the animation. Sound effects are ample, with the combined use of sound effects and color providing a unique and creative "GAME OVER" screen at the game's termination.

SEA DEVIL is a one player game, with a set skill level and one-time allotment of five ships. The game itself is almost identical to Astrocade's COSMIC RAIDERS. Interestingly enough, the only difference between the two games is the graphics. In one game you are in outer space and in the other you are underwater. In both games, however, you the player are doing the same thing: traveling left or right across a landscape shooting at objects coming toward you, and using a "radar screen" to get an advance look ahead.

A review of COSMIC RAIDERS is available in Arcadian Vol. 6 #3 page 23. In our review here of SEA DEVIL we are commenting only on the few differences that are unique to SEA DEVIL, one of which is the sea mines. These mines are released by "poachers" and require evasive action to avoid. They float at various depths, slowly rising and sinking. Contact with one, or with any creature, causes the loss of a ship. Occasionally a creature goes to the bottom to supposedly get food. Each time one does, the player loses points off his bonus score.

For each level (screen) that is cleared a new one appears and the game speed will increase. Essentially, SEA DEVIL plays the same as COSMIC RAIDERS. Both are good, enjoyable games. Personally, I prefer SEA DEVIL, because I like the graphics a little more.

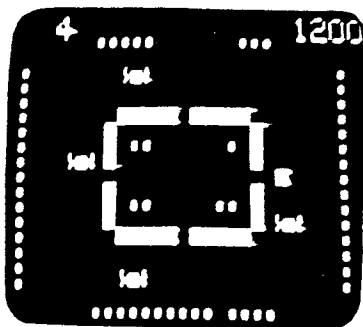
Overall our panel of players gave SEA DEVIL a good rating. Graphics, sound, colors, action; all received good marks. There was some disappointment in that SEA DEVIL was so much like COSMIC RAIDERS, but that did not seem to deter anyone from enjoying the game. SEA DEVIL is a fine game in its own right and will make a nice addition to anyone's game collection.

**MAIL BAG:** Premiering in this issue is the new official SCOREBOARD format. Nineteen different games are now eligible for high scores. Those games with several skill level choices are presented with a high score for the easiest level and one for the most difficult level. If no one or few people submit scores for certain games, those games will be dropped from the current roster. Requests for adding other games, cartridges or cassette, will be considered.

**RULES:** To submit a score, you must play the game at the skill level and with the number of "lives" (ships, turns, balls, etc.) as listed on the official scoreboard roster. Write down your name, address, high score, game, skill level, lives, and mail it to: GAME PLAYER, c/o Michael Prosize 48-G Ridge Road, Greenbelt, Maryland 20770. (Do not send scores to the Arcadian's San Jose address please.) No photograph of the t.v. screen is necessary (at this point), as we operate on the honor system.

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SCREEN OF QUADRON (p. 91)



# Official ASTROCADE SCOREBOARD

GAME	SKILL	LIVES	SCORE	NAME
MUNCHER			* 90,500	Joe Adams
COSMIC RAIDERS	1	3		
COSMIC RAIDERS	9	3	11,150	George Moses
SOLAR CONQUEROR	1	3	23,957	Dave Bercellie
SOLAR CONQUEROR	9	3		
THE WIZARD	1		453,200	Stan Kendall
THE WIZARD	3			
BALLY PIN I			320,430	Don Gladden
BALLY PIN II			*340,640	Rick Mattice
PIRATES CHASE	1	3		
PIRATES CHASE	9	3	705,284	Peggy Gladden
GALACTIC INVASION	1	3		
GALACTIC INVASION	9	3		
SPACE FORTRESS	1	3		
SPACE FORTRESS	9	3	9,550	Michael Prosisie
BRICKYARD	1	6	1,875	Kelly Prosisie
BRICKYARD	4	6		
MS. CANDYMAN	1		265,122	Craig Conner
MS. CANDYMAN	3		61,578	Craig Conner
SPACE INVADERS	1		7,045	Stan Kendall
SPACE INVADERS	4			
SEA DEVIL			177,850	Eric Allen
SNEAKY SNAKE			56,457	Joe Adams
TREASURE COVE	?	?	32,817	David Krec
COLLISION COURSE				
EXITOR'S REVENGE			31,575	Fred Olivas
DUNGEONS OF DRACULA			3,440	Al Showalter
FLYING ACE		6		
PACK RAT II **				

\*\*New version only

\*Indicates new high score

DEADLINE to submit scores for  
next issue is August 14.

```

1 .
2 .
3 .
4 . TOWER OF HANOI
5 . BY BOB WISEMAN
6 CLEAR ;INPUT "HOW MANY BOXES?" R
7 @(0)=9
8 BC=159;FC=11
9 CLEAR ;A=0;C=1
10 CX=-65
11 PRINT "TOWER OF HANOI",
12 FOR X=1TO 21
14 @(X)=0;NEXT X
16 IF R>7 R=7
20 FOR T=RTO 1STEP -1
30 B=T;GOSUB 400;NEXT T
100 IF @(1)=0IF @(8)=0GOTO 900
105 IF @(1)=0IF @(15)=0GOTO 900
110 GOSUB 600;GOSUB 500
130 IF B=0GOTO 110
140 GOSUB 600;GOSUB 400
160 IF B#0GOTO 140
165 A=A+1
166 CX=60
170 PRINT #3,A,
180 GOTO 100
400 D=(C-1)b7+1
402 IF @(D)=0X=D;GOTO 430
405 FOR X=DTO 21
410 IF @(X)=0GOTO 420
415 NEXT X
420 IF B>@(X-1)GOTO 480
430 @(X)=B;GOSUB 700
440 B=0;GOTO 490
480 FOR X=1TO 5
485 MU="Z";NEXT X
490 RETURN
500 D=(C-1)b7+1;B=0
510 FOR X=DTO 21
515 IF @(X)=0GOTO 530
520 NEXT X
530 X=X-1
540 IF X<DGOTO 585
550 B=@(X);GOSUB 700
560 @(X)=0
565 GOTO 599
585 FOR X=1TO 5
590 MU="Y";NEXT X
599 RETURN
600 IF &(16)=0MU="T";GOTO 620
610 GOTO 600
620 C=0;D=&(16)
630 IF D=4C=1
640 IF D=1C=2
650 IF D=8C=3
660 IF C=0GOTO 620
690 RETURN
700 Z=-72+36bC
705 Y=(X-1)c7
710 Y=-35+10bRM
720 W=5bB
730 BOX Z,Y,W,9,3
740 MU=B.
790 RETURN
900 CLEAR
905 BC=6;FC=0
906 PRINT " ",
910 PRINT "YOU FINISHED "
920 PRINT " THE TOWER IN",#3,A," MOVES"
921 B=1;FOR X=1TO R
922 B=Bb2;NEXT X
924 A=A-B+1
925 IF A=0PRINT "GREAT WORK";GOTO 928
926 IF A<Rb2PRINT "NOT TOO BAD"
927 IF A>2bRPRINT "KEEP TRYING"
928 PRINT " YOU WASTED",#4,A," MOVES"
930 PRINT "PULL TRIGGER TO PLAY"
935 R=R+1
940 IF TR(1)=1GOTO 2
950 GOTO 940

```

```

=====
= T O W E R   O F   H A N O I
=====

```

THE OBJECT OF THIS PUZZLE IS TO REBUILD THE TOWER OF HANOI IN A NEW LOCATION. YOU WILL BE ASKED HOW MANY BLOCKS YOU WISH, AND THESE WILL BE STACKED IN DESCENDING ORDER ON THE LEFT. NOW YOU MUST MOVE THEM AROUND TO REBUILD THE TOWER IN THE CENTER OR ON THE RIGHT. A LARGER BLOCK MAY NOT REST ON A SMALLER BLOCK. MOVING A BLOCK IS DONE IN TWO STAGES. FIRST, YOU ERASE IT, THEN YOU REDRAW IT. ONLY THE TOP BLOCK OF A STACK MAY BE MOVED. TO INDICATE WHICH STACK YOU WANT, USE THE HAND CONTROL.



LOWERCASE = 1-BYTE KEYPAD WORDS. UNDERScores  
= SPACES. 1777 CHARACTERS

```

1 clear ;Z=4;F=0;K=-60
2 E=-33;M=0;N=36
3 I=60;J=-30
4 for A=1to 99;box B,C,1,1,3;B=rnd (150)-75;
C=rnd (99)-50;next A
5 box M,N,3,5,1;line M-3,N-7,4;line M,N,3;li
ne M+3,N-7,4;line M,N,3;box M,N+5,2,3,3;line
M+5,N+4,4;line M,N,3;line M-5,N+4,4
6 line M,N,3
7 box M,N+5,3,1,3
9 B=-36
10 for A=1to 128;box A-61,B,10,2,3
11 B=B+1
12 A=A+5
13 if A>125goto 10
14 if B>26goto 39
15 next A
39 box 0,-37,130,2,1;box 0,6,130,2,1;box 0,-
16,130,2,1;box 0,27,130,2,1
40 Z=6
41 A=-60;B=-27;C=A
42 box A,B,6,21,1;for D=B-Zto 26step 3;box C
,D,4,2,2
44 if D>-21if D<-17_A=60;B=-6;C=A;goto 42
45 if D>0if D<5_A=-60;B=17;C=A;Z=8;goto 42
48 next D
50 C=0;D=0;U=0;W=0
51 T=32;V=31
52 G=T;H=V
53 S=4;Z=4
55 A=T;B=V
57 Y=10;X=0
58 P=0;for Q=38to 31step -1;P=P+4;box P,Q,10
,4,3;box P,Q,10,4,3
59 next Q;box 32,31,10,4,3
60 box G,H,10,4,3
61 box A,B,10,4,Z
62 if J=33;CY=0;print "WON";STOP
64 G=G+Y
65 H=H+X
66 if G>I-6if G<I+6if H>J-6if H<J+6goto 300
67 if A=32if B=31if G=42if H<20;Z=3;C=10;D=0
;A=32;B=31;box G,H,10,4,3;goto 58
68 if A>I-6if A<I+6if B>J-6if B<J+6;goto 300
69 if T>I-6if T<I+6if V>J-6if V<J+6;goto 300
70 A=A+C
71 B=B+D
72 if A<-52C=10;D=0
73 if A>47C=-10;D=-2
74 if T=32if V=31if A<-54_S=3;U=10;W=0;T=32;
V=31;box A,B,10,4,3;box G,H,10,4,3;goto 58
75 box T,V,10,4,S
76 T=T+U
77 V=V+W
78 if T>49U=-10;W=-2
79 if T<-54U=10;W=0
86 if G<-52Y=10;X=0
90 if J=-10K=60
91 if J=12K=-60
99 if B<-30if A>48A=32;B=31;C=10;D=0;box G,H
,10,4,3;box T,V,10,4,3;goto 58
100 if V<-30if T>48T=32;V=31;U=10;W=0;box G,
H,10,4,3;box A,B,10,4,3;goto 58
101 if H<-30if G>48G=32;H=31;box A,B,10,4,3;
box T,V,10,4,3;goto 58
103 box G,H,10,4,3
104 box A,B,10,4,Z
105 box T,V,10,4,S
106 box G,H,7,2,3;box G,H,7,2,3
107 box T,V,7,2,S;box T,V,7,2,S
108 box A,B,7,2,Z;box A,B,7,2,Z
111 if G>49Y=-10;X=-2
113 line I-2,J-6,4;line I,J,3
114 line I+2,J-6,4;line I,J,3
115 box I,J+5,2,3,3
116 box I,J+5,4,1,3
117 line I+4,J+3,4;line I,J,3
118 line I-4,J+3,4;line I,J,3
119 box I,J,3,5,3
120 if PX(I,J-7)-0;I=I+JX(1)×100÷20
121 if I=K;J=J+JY(1)×100÷30
122 box 60,-30,13,13,2
123 if PX(I,J-7)-0if TR(1)J=J+10
124 if PX(I,J-7)=0;J=J-2
125 if J<-37goto 300
150 box I,J,3,5,3
151 line I-2,J-6,4;line I,J,3
152 line I+2,J-6,4;line I,J,3
153 box I,J+5,2,3,3
154 box I,J+5,4,1,3
155 line I+4,J+3,4;line I,J,3
156 line I-4,J+3,4;line I,J,3
158 goto 60
300 CY=0;print "LOST"

```

SPACE APE is a version of the ladder-climbing problem. The object is to get to the top of the platform where the Ape is located. You must jump over barrels to avoid getting hit, using the Trigger. There are three barrels in the way all the time. To climb the ladder, you must be directly in line with it. JY controls your direction, but don't fall off the edge!

Henry Sopko  
2705 King St. East #110  
Hamilton, ONT, Canada L8K-1Y4



# ASTROCADE

## Summer Sale

Now! Get your favorite Astrocade Cartridge for the lowest prices ever! Prices normally \$24.95 to 34.95 now \$4.95 each. Sale running to September 15, 1984.

Choose from the Following Titles:

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2009 Astro Battle  
2010 Dogpatch  
2012 Space Fortress  
3001 Baseball  
3002 Football  
3005 Bally Pin  
4004 Biorhythm  
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We also are sorry to announce that the cartridges from Esoterica Ltd., Treasure Cove and BlastDræds are no longer available.

By the way, we still have in stock some of the newest games for the Astrocade, such as Cosmic Raiders, Solar Conqueror, Muncher, Ms. Candyman, Sea Devil, and Sneaky Snake. This group are not on sale.

Remember, Sale running to September 15 for all of the above cartridges--\$4.95 each also please include \$1.50 for shipping. Quantity is limited so buy now. Sale limited to existing stock. Once we are out--it is over

ABC Hobbycraft  
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Evansville IN 47711  
(812) 477-9661

NEXT ISSUE will be a biggie, but after a month's respite. Right, no issue for September. That's because the staff will be taking a lengthy vacation visiting Europe for the month of September. We'll land in Rome, and Eurailpass our way in a northwesterly direction, returning from England. The trip will sort of parallel the one we took four years ago. On our return, we'll start work on a double issue, which will also be the last issue for this Volume. We can still use more material for subsequent issues.

SUBSCRIPTION RATES FOR THE NEXT VOLUME will be identified in the next, October, issue.

FOR SALE - Electro-mechanical keyboard connects in parallel with Bally keyboard, relay driven, use one key for letters and numbers, shift key for words. Cost \$100.00 to build - make offer over \$35.00. Mike Pawlowski, 9294 Quandt, Allen Park, Mich. 48101 or call (313) 388-2162 after 5:00 p.m.

FOR SALE Bally Arcade units - brand new with two controllers and AstroBasic cartridge. Only 6 left at \$50 each plus \$5. for shipping. Cartridges available: Pinball, Dogpatch, Amazing Maze, Astro Zap, Letter Match, Acey-Ducey, SpeedMath, Basic, Galactic Invasion, \$7.50 each plus shipping. Others. John Capra, 232 Edgewood Ave., Thornwood, NY 10594 (914) 769- 6662

AMERICAN FLAG, back on page 76, has a couple of errors: change two lines so that they read 220 X= -563;GOSUB C and 230 X= 15305; GOSUB C.

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ARCADIAN

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the SOURCE TCD 959

