Those of you who are starting with us with this volume may be interested in a
very short history. The Bally Arcade was first advertised by the Chicago mail
order house of JS&A in such magazines as Popular Science, Scientific American,
the airline freebies and a couple of others in Sept/Oct. of 1977. In the two
page ad, delivery was promised in four weeks and the expansion unit was indi-
cated to be available in 6 weeks, so that a complete and highly sophisticated
computer would be shotly available at a $600 price range. The Tiny BASIC
showed up in October 1978, and I started this subscription newsletter in Nov.
We have yet to see the expansion unit (Add On)(Level III), but in the last year
a number of doors have been unlocked in the Tiny BASIC and subscribers, as a
group, are the only ones able to expand their programs and enhance their oper-
ations. This Newsletter is the only established source of free programs, and
provides a place for those wishing to market their outputs.

PRINTER OUTPUT. I GUESS YOU NOTE THE UNUSUAL TYPE IN THIS PARAGRAPH; THIS IS
BEING TYPED VIA MY NEW Comprint 912S PRINTER UNDER DIRECT CONTROL OF THE BALLY.
I HOPE TO PRINT MORE OF THE ARCADIAN THIS WAY IN THE FUTURE - THIS IS A SAMPLE
TO WHET YOUR APPETITE. THIS MACHINE WAS ADVERTISED ON THE INSIDE FRONT COVER OF
THE JULY KILOBAUD. COST IS $699 RETAIL, BUT I HAVE A SOURCE FOR IT AT $525
FOB SAN JOSE (PLUS CAL TAX IF APPLICABLE). FULL DETAILS NEXT TIME.

SAUCER BATTLE

BY JOHN HURST

9/79

10 - 100	Initialize and Input mode of play. Draw stars and print scoring.
200 - 290	Draw saucers and allow control by hand controls. Two player game.
300 - 495	One player against computer. Draw saucers, left for player, right for computer. Computer random positioning and movement. Set ups for computer or TR(1) firing.
500 - 530	Set ups for TR(1) or TR(2) firing in two player mode.
540	Back to two player program if neither saucer fires LASER.
600 - 680	Fire left saucer's LASER,if a hit goto blowup routine, if not go back to one or two player routine, whichever is in use.
700 - 780	Same as 600, but for right saucer.
800 - 860	Blowup right saucer, back to main program in use. Upgrade score.
900 - 960	Blowup left saucer, back to main program in use. Upgrade score.
1000 -1010	Print GAME OVER. If GO key is pressed, goto line 10 to play again.

This game can be played by two or one, (against the computer).
Difficulty of hitting target can be selected, 0→1, 0 being the hardest.
Amount of LASER blasts and Max Score to win can be selected. If one player
option is selected, accuracy of the computer can be set, 0→2, 0 being the
most accurate. If the computer fires when accuracy is 0, it will not miss.
If both triggers are pulled at the same time, neither will fire, in two
player option. If remaining LASER blasts are five or less, an open hole
will appear in the center of the saucer that is low on charge. When all
charge for LASER is depleted for one saucer, he can no longer fire. If
both saucers are depleted of charge, or Max Score is reached by one saucer,
game is over. To play again just press GO key.
The memory use of this game is very close to the max available to the
Bally, so care should be used when entering this program. Use no spaces unless
necessary, the listing may have extra spaces due to my typing. If you
don't need them, don't use them. Also deleting lines 1 - 5 can save some
memory if needed. Good Luck.

John R. Hurst

PROGRAM NAME SAUCER BATTLE

```
Line #    Statement(s)
1    .*SAUCER BATTLE+
2    .
3    .BY JOHN HURST
5    . 9/79
10   F=0;G=0;I=0;I=0;NT=1
20   CLEAR;BC=0;FC=126;&(0)=0;
     &(1)=0;&(2)=126;&(3)=0
30   INPUT"DIFFICULTY:0→12" N
40   PRINT "HOW MANY
50   INPUT" LASER BLASTS F" U
60   INPUT"MAX SCORE Z" H
70   INPUT"1 or 2 PLAYERS F" L;
     IF L=1 INPUT"ACCURACY OF
     COMPUTER:0→2 " M
80   CLEAR;FOR A=1 to 50;B=RND
     (136)-65;C=RND(88)-44
90   BOX B,C,1,1;NEXT A;CK=
     -17;CY=40;PRINT "·SCORE→
100  CX=-77;CY=32;PRINT #10,J;
     #8,I;IF L=1 GOTO 300
110  BOX-75,K,4,4,3;BOX75,D,4,
     4,3
220  IF F>=U-5 BOX-75,K,2,2,3
230  IF G>=U-5 BOX 75,D,2,2,3
240  IF F>=U-5 BOX-75,K,2,2,3
250  IF G>=U-5 BOX 75,D,2,2,3
260  BOX-75,K,4,4,3;BOX75,D,4,
     4,3
270  IF F=U IF G=U GOTO 1000
280  IF(TR(1))-(TR(2))GOTO 500
290  GOTO 200
300  D=RND(76)-38
310  K=KN(1)+4-6;D=D+RND(10)-5
320  IF D>25 D=25
330  IF D<-38 D=-38
340  BOX-75,K,4,4,3;BOX75,D,4,
     4,3
350  IF F>=U-5 BOX-75,K,2,2,3
360  IF G>=U-5 BOX 75,D,2,2,3

Line #    Statement(s)
370  IF F>=U-5 BOX-75,K,2,2,3
380  IF G>=U-5 BOX 75,D,2,2,3
390  BOX-75,K,4,4,3;BOX75,D,4,
     4,3
400  IF F=U IF G=U GOTO 1000
410  IF F=U GOTO 440
420  IF TR(1)GOTO 600
430  IF G=U GOTO 310
440  IF M=1 GOTO 480
450  IF M=2 GOTO 490
460  IF K>D-1 IF K<D+1 GOTO 700
470  GOTO 310
480  IF K>D-3 IF K<D+3 GOTO 700
485  GOTO 310
490  IF K>D-6 IF K<D+6 GOTO 700
495  GOTO 310
500  IF F=U GOTO 536
510  IF TR(1) GOTO 600
520  IF G=U GOTO 200
530  IF TR(2) GOTO 700
536  GOTO 200
600  BOX-75,K,4,4,1;BOX75,D,4,
     4,1
610  F=F+1;LINE-73,K,4,;LINE
     75,K,3
620  &(16)=-255;&(21)=-255;
     &(23)=44
630  LINE-73,K,4;LINE75,K,3;
     LINE0,0,4;&(16)=0;&(21)=0;
     &(23)=0;IF N=1GOTO 670
640  IF K>D-2 IF K<D+2 GOSUB800
650  BOX-75,K,4,4,2;BOX75,D,4,
     4,2;IF L=1 GOTO 300
660  GOTO 200
670  IF K>D-3 IF K<D+3 GOSUB800
680  GOTO 650
700  BOX-75,D,4,4,1;BOX75,K,-75,,
     4,4,1
710  G=G+1;LINE73,D,4,;LINE-75,,
     D,3

Line #    Statement(s)
720  &(23)=255;&(21)=255
730  LINE 73,D,4;LINE-75,D,3;L1
     NE 0,0,4;&(21)=0;&(23)=0;
     IF L=2 IF N=1 GOTO 770
740  IF D>K-2 IF D<K+2 GOSUB900
750  BOX 75,D,4,4,2;BOX-75,K,4,
     4,2;IF L=1 GOTO 300
760  GOTO 200
770  IF D>K-3 IF D<K+3 GOSUB900
780  GOTO 750
800  FOR E=1 TO 10;&(9)=37;
     &(2)=90
810  FOR P=0 TO 1
820  BOX 75+RND(4)-2,D+RND(4)-2
     ,2,2,3;NEXT P
830  MU="#";NEXT E;&(2)=126;
     &(9)=50
840  J=J+1;CX=-77;CY=32;PRINT
     #10,J
850  IF J=H GOTO 1000
860  BOX 75,D,10,10,2;RETURN
900  FOR E=1to10;&(9)=4;FC=90
910  FOR P=0 TO 1
920  BOX-75+RND(4)-2,K+RND(4)
     -2,2,2,3;NEXT P
930  MU="#";NEXT E;FC=126;&(9)
     =50
940  I=I+1;CX=-17;CY=32;PRINT I
950  IFI=H GOTO 1000
960  BOX-75,K,10,10,2;RETURN
1000 CX=-23;CY=0;PRINT"GAME
     OVER
1010 R=KP;IF R-13 GOTO 10
```

ANOTHER PRINTER has been successfully connected to the Bally, writes John Hurst. He has a Victor Model 1250 that uses 3 3/4" wide adding machine tape, with 34 characters per line. John sent some sample material, but the print was blue and wouldn't reproduce. He also needs the little converter that was shown on p.47 of Vol. 1.

NOSTALGIA?for those who can recall some of the older Bally gaming machines. This antique was included in an auction held at Disneyland in late November.

Bally Sparkplug Paying Horse Race Game.

DECIMAL DIVISION is a version by Laurence Gallant that will give you up to 32,676 decimal places (the variable Z).

```
1  .DECIMAL DIVISION
5  .BY L. GALLANT
10 INPUT X,Y,Z
20 A=X÷Y
30 PRINT #1,A,#1;".",
40 FOR B=1 TO Z
50 E=(RM×10)÷Y
60 PRINT E,
70 NEXT B
```

LOGO shown at the head of page ONE is based on an idea by Guy McLimore, and embellished by myself. If you'd like to see it in action (literally) and in living color, the program is included.

PROGRAM NAME LOGO

```
Line #   Statement(s)
10  CLEAR
20  &(9)=37
30  BC=250;FC=7
40  FOR A=1 TO 150
50  H=RND(160)-80;V=RND(88)-44
60  BOX H,V,1,1,RND(2)
70  NEXT A
80  &(9)=85;&(1)=250
90  &(2)=108;&(11)=250
100 CX=-44;CY=0
110 PRINT"ARCADIAN
120 LINE 0,0,4
130 FOR Q=0 TO 35 STEP 2
140 LINE 75,Q,3;LINE 0,0,4
150 LINE 75,-Q,3;LINE 0,0,4
160 NEXT Q
170 L=7;FOR Z=48 TO 51
180 BOX -Z,0,1,L,1
190 L=L-2
200 NEXT Z
210 BOX -22,0,56,9,3
220 FOR Q=0 TO 35
230 LINE 75,Q,3;LINE 0,0,4
240 LINE 75,-Q,3;LINE 0,0,4
250 NEXT Q
260 GOTO 220
```

PROGRAM REVIEWS are being covered in detail in this first issue of Vol.2
in order to act as a reference base for future material. Dick Houser
635 Los Alamos Ave., Livermore,CA 94550 is heading up a team consisting of
      Steve Wilson   18015 Sally Ave.   Cleveland OH 44135
      Don Daniels   3 Apex Road   Melville NY 11746
      Bill Rueger   336 Beach 38th St Far Rockaway NY 11691
      Phil Shafer   3708 Big Horn Trail Plano TX 75075

These gentlemen will accept programs which are offerred FOR SALE by various
vendors, and will subject the programs to hands-on operation, review these
and then report their findings on the quality of subject matter, documentation,
etc., per the form shown on page FOUR. The reviews that appear in the ARCADIAN
will be abbreviated to show only the rating answers. Program vendors are
being contacted directly by Dick, based on ads run previously. If you are
a 'new' vendor, please drop him a line if you are interested in having
impartial reviews of your product.

CORRECTIONS of previous programs:
     Dick Nitto, who wrote the article "Have a Ball with Bally" in the latest
KILOBAUD writes about dropouts in two of the lines in the program he had
included there- They should read
          270 GOSUB 440; IF G=1 GOTO 330
          280 IF S=0 R=R+1; GOTO 330
He also writes that an easier version is possible if you substitute
          260 IF X<3 IF X>-3 IF Y<3 IF Y>-3 GOTO 300
          440 IF X<4 IF X>-4 IF Y<4 IF Y>-4 A=520; G=1; GOTO 460

    MICROTREK needs to be corrected to
          200 CLEAR; C = E-S; IF C 0 C=-C
          220 Q=0; IF C 2 IF G 2 Q=1
    and Bill Templeton suggests the following color commands for enhancement.
Insert them in each line just before the RETURN command -
          700 FC = 0;
          710 FC = 90;
          720 FC = 172;
          730 FC = 133;

    SPACE WAR as printed on p.79 had two points needing work, writes
John Johnson. The asterisk (*) in lines 300 and 500 should be changed to
the x for multiplication. In line 820, the Y-5 should be T-5

    RESEQUENCING apparently does not work on all machines. We noted on p. 25
that there were at least two variations of Bally software. We'll work on this
to see what changes might have to be made.

    CHECKER as modified on p.90 has a typo of mine, in that the @(5)
in line 260 should be @(S).

    TUTORIAL (3) on p.41 is called a real space saving help by John
Collins, who suggests adding an equals sign to line 9030 so that it reads

      9030 PRINT #1,"=",%(20076 + (Zx2))

REVIEW FORM
        This form is used by the reviewer in doing his job, showing what things
he will be looking for and the gradations possible. The very bottom of the
form is what will appear in the ARCADIAN. You can refer back to this page
to refresh your memory on the ratings.

Source Code _____ Cassette Code _____ Program Code _____ BPRF4

                    BALLY PROGRAM REVIEW

Date:_____
Name of Program:_____Cassette Name_____
Description:_____
Source:_____Price_____
Reviewed by:_____Age:____

Circle score for each item 0 1 2 3 4 5 6 7 8 9   on scoring line.

PROGRAM DOCUMENTATION (PD)

        No Instructions 0 1 2 3 4 5 6 7 8 9   Very Clear Description
                                               Listing,Flowchart,Instructions

PROGRAM POLISH (PP)

        Sloppy, Amateurish 0 1 2 3 4 5 6 7 8 9   Professional

USE OF SPECIAL FEATURES (USF)

        Minimal Used 0 1 2 3 4 5 6 7 8 9   Great Use of Features
                                           Graphics, Sound, Handles

LEVEL OF CHALLENGE (LC)

        Not Challenging 0 1 2 3 4 5 6 7 8 9   Very Challenging

ORIGINALITY AND CREATIVITY (OC)

   Adapted, Same Old Stuff 0 1 2 3 4 5 6 7 8 9   Totally Brilliant and Unique

LEVEL OF INTEREST (LI)

        Boring 0 1 2 3 4 5 6 7 8 9   Fascinating

EDUCATIONAL VALUE (EV)

        Little 0 1 2 3 4 5 6 7 8 9   Really Learn Facts
                                     and Skills

EASE OF USE (EU)

   Awkward, Inconvenient 0 1 2 3 4 5 6 7 8 9   Easy, Quick, Convenient

OVERALL VALUE (OV)

        Almost Worthless 0 1 2 3 4 5 6 7 8 9   Everyone Should Buy
....
Name of Program:_____Cassette Name:_____
Description:_____
Source:_____Price_____
Reviewed By:_____Age:___
Ratings   : PD=__ PP=__ USF=__ LC=__ OC=__ LI=__ EV=__ EU=__ OV=__ TP=__ SZ=___
Time to Play _____ For Ages _____ # of Players _____

"ARCADE DICE" by KLAUS GRISMAYER

```
1.ARCADE DICE
2.BY K.F.G.
3:RETURN
5CLEAR;NT=ø;FC=84;BC=24
1øPRINT;PRINT" * * * ARCADE DICE * * *
2øPRINT;PRINT;PRINT" 1 ELECTRONIC DICE
3øPRINT;PRINT" 2 ELECTRONIC CRAPS GAME
4øPRINT;PRINT;PRINT"      MAKE SELECTION
5øIF&(23)=8 CLEAR;GOTO 1øø
6øIF&(22)=8 CLEAR;K=1;T=ø;GOTO15ø
7øGOTO5ø
1øøGOSUB78ø;INPUT"# OF PLAYERS:"P;IF P>4 P=4
11øIFP=1 K=1;GOSUB 8øø;GOTO11ø
12øGOTO7øø
14øCX=-75;CI=-4ø;RETURN
15øNT=1
16øBOX ø,3ø,8ø,9,2
17øBOX ø,4ø,16ø,8,2
18øM=((KN(1)÷128)÷28)+1
19øIF&(22)=16 GOTO 5
2øøGOSUB14ø;PRINT" BET:$",#3,K,
21øIF TR(1)=ø GOTO 18ø
22øGOSUB 8øø
23øGOSUB 5øø
24øS=L+R
25øIF S=7 GOSUB 51ø;GOTO6øø
26øIF S=11 GOSUB 51ø;GOTO6øø
27øIF S=2 GOSUB 52ø;GOTO4øø
28øIF S=3 GOSUB 52ø;GOTO4øø
29øIF S=12 GOSUB 52ø;GOTO4øø
3øøGOSUB5øø;PRINT"ROLL AGAIN",
31øGOSUB8øø
32øGOSUB5øø
33øA=L+R.
34øIF A=S GOSUB 53ø;GOTO6øø
35øIF A=7 GOSUB 54ø;GOTO4øø
36øGOTO 31ø
4øøGOSUB 14ø;PRINT" # # # YOU LOSE # # # #
41øNT=8
42øMU=49;MU=51;MU=53;MU=98;MU=49;MU=48;MU=53;
    MU=98;MU=49;MU=48;MU=48;MU=48;MU=48
43øNT=ø
44øCX=-75;CI=-4ø;PRINT" LOST $",#3,M,
45øM=-M
46øGOTO55ø
5øøCX=-2ø;CI=3ø;RETURN
51øPRINT"A NATURAL",;RETURN
52øPRINT"CRAPS",;RETURN
53øPRINT"A MATCH   ",;RETURN
54øPRINT"CRAP OUT   ",;RETURN
55øT=T+M
56øCX=ø;PRINT"YOU HAVE $",#3,T,
57øFOR Z=1TO1øø
58øI=I+1;NEXTZ;I=ø
59øGOTO15ø
6øøGOSUB 14ø;PRINT"$$$$$$$ A WINNER $$$$$$$
61øNT=8
62øFORZ=1TO2
63øMU=51;MU=48;MU=53;MU=48;MU=51;MU=52;
    MU=48;MU=53;MU=48;MU=48;MU=48;MU=48
64øNEXT Z;NT=ø
65øCX=-75;CI=-4ø;PRINT"  WIN $",#3,M,
66øGOTO55ø
7øøFOR K=1TOP÷3;@(K)=ø;NEXTK
71øFORK=1TO P
72øGOSUB78ø;PRINT"PLAYER #",#2,K," ROLLS",
73øGOSUB8øø;@(K)=L+R;NEXTK
74øFORK=1TO P
75øIF@(K)>@(K+1) IF@(K)>@(K+2) IF@(K)>@(K+3)
    GOSUB78ø;PRINT"PLAYER #",#2,K," WINS ",;
    GOTO77ø
76øNEXTK
77øFORZ=1TO2øø;I=I+1;NEXTZ;I=ø;GOTO7øø
78øCX=-4ø;CY=-4ø;RETURN
8øøN=7-((KN(K)÷128)÷42)
81øNT=1;IF&(22)=16 GOTO 5
82øCX=ø;CY=-4ø;PRINT"# OF ROLLS:",#2,N,
83øIFTR(K)=ø GOTO8øø
84øNT=2ø;FORD=1TON
85øBOX-4ø,ø,44,44,1;BOX-4ø,ø,42,42,2
86øL=RND(6);X=-4ø;GOSUB89ø+(Lx1ø)
87øBOX4ø,ø,44,44,1;BOX4ø,ø,42,42,2
88øR=RND(6);X=4ø;GOSUB89ø+(Rx1ø)
89øNEXTD;NT=1;RETURN
```

```
900GOSUB960;RETURN
910GOSUB970;RETURN
920GOSUB960;GOSUB970;RETURN
930GOSUB970;GOSUB980;RETURN
940GOSUB960;GOSUB970;GOSUB980;RETURN
950GOSUB970;GOSUB980;GOSUB990;RETURN
960BOX X,0,6,6,1;RETURN
970BOX X+12,12,6,6,1;BOX X-12,-12,6,6,1;
    RETURN
980BOX X-12,12,6,6,1;BOX X+12,-12,6,6,1;
    RETURN
990BOX X-12,0,6,6,1;BOX X+12,0,6,6,1;RETURN
```

Keep all the spacing tight (except inside the quotation marks;they should be as shown above) even though it was typed a little inconsistently. The program uses almost all of the BASIC UNIT's memory. The command PRINT SZ must indicate at least 14, if not, eliminate lines 1 & 2.

The program operates as follows:

LINES #1 - 70 set up the menue
LINES 100 - 120 selects the number of players for electronic dice
LINES 140 - 210 sets up player bet for craps game
LINES 220 - 360 compares the numbers rolled on the dice, determining both winning and losing combinations
LINES 400 - 460 is the loser routine for craps
LINES 500 - 540 specify winning and losing combinations
LINES 550 -590 give player total and returns for next bet
LINES 600 -660 is the winner routine for craps
LINES 700 - 730 enters each player's roll on electronic dice
LINES 740 - 780 selects the winner for electronic dice (highest combination)

LINES 800 - 830 selects number of times dice roll
LINES 840 - 890 roll dice (random selection) and draws frame for dice
LINES 900 - 950 select dot combinations
LINES 960 - 990 draw dots on dice

ARCADE DICE is played with the hand controls. First menu selection allows up to four players to play in rotation, just enter the number of players, then press go. Number of rolls is selected by knob on hand control, pulling the trigger will begin the rolling. After the combination is displayed, control shifts to the next hand control. After everyone has thier turn, the winner is immediately selected.

The second menu selection allow player to place bet with knob and trigger, then number of rolls is selected as above. Score is automatically indicated.

To return to menu, press Zero (O) on keypad. This can only be done during selection stages of rolls or bet, which reset automatically.

This program can be modified using the separate sections in other combinations, or modifying the size and location of the dice. Electronic dice can replace regular dice in board games, by keeping track of whose turn it is (everyone gets thier own control, but cannot move out of turn).I hope this will give someone certain possibilities.

YOURS TRULI,
KLAUS GRISMAYER
320 Hanna Ave.,Bldg.3,Apt.8
LOVELAND, OH 45140

MACHINE ACTING UP? Most of us have had problems of intermittent failure, garbage on the screen, keypad or controller malfunction, etc. Bally has set up a number of service centers around the country, primarily to take care of their commercial arcade machines, and most problems are solved by a simple swap of units. New units didn't always work and so some subscribers have had 5,6, or 7 units before they got a good one. I'm on #3 myself. Gunther Dorth, 154 Cornell Ave., Des Plaines,IL 60016 has volunteered to act as a clearing house,requesting information from those of you who have had problems, had them solved, still have them, etc.,etc. When writing, send him your serial number.

POKE program that does funny things was sent in by Dick Martin. It keeps changing its own line numbers,and other stuff....
```
10 INPUT A
20 %(A)=A
30 TV = %(A)
40 GOTO 10
```

TAPE PROGRAM PURVEYORS might be interested in trying this idea I had the other day - How about a vocal description prior to the program itself, and then some vocal instructions after the program has been loaded. Put some suitable instructions where they will help.
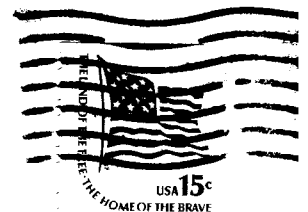
ADS: Sell Bally Computer System complete,includes Panzer/Baron,Clowns,Breakout, Football, Star Battle, Blackjack,Baseball and 4 joysticks. Best offer about $300. Brand New. Mark Turmell, 4691 S. Elm Dr. Bay City, Mich,48706
517-684-9189
Listing only for Chuck-a-Luck, a one-player gambling game with graphics. $1 and self-addressed envelope to Al Nowak,10632 S.Kenneth,Oak Lawn IL 60453

CORRECTION to the Handbook (sample page on p.83) noted by Chuck Thomka. On p.109, the labels of columns MC∅ and MC1 should be reversed. The same table is properly shown on p.123

ARCADIAN

Robert Fabris, PRINTER
3626 Morrie Dr.
San José, CA 95127

USA 15¢
HOME OF THE BRAVE

FIRST CLASS