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VOLUME 1

NUMBER 3

TRS-80

COMPUTING



ORIGINAL PROGRAMS FOR:

THE TRS-80 COLOR COMPUTER 2

SOFTWARE INFO. FOR:

APPLES, COMMODORES, ETC...

ORIGINAL COPY
To borrow only
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TRS-80 COMPUTING

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GRAPHICS PROGRAM-#2

This month's graphic program in TRS-80 COMPUTING is 'Bull's Eye' & 'Crescent Moon'.

Since these programs are so short we decided to put in two this month.

```
1 ' BULL'S EYE
2 ' TRS-80 COLOR COMPUTER
3 ' 64K EXTENDED BASIC
10 PMODE 4,1
20 PCLS
30 SCREEN 1,0
40 FOR RADIUS=1 TO 100 STEP 10
50 CIRCLE(128,96),RADIUS
60 NEXT RADIUS
70 GOTO 70
```

```
1 ' CRESCENT MOON
2 ' TRS-80 COLOR COMPUTER
3 ' 64K EXTENDED BASIC
5 PMODE 4,1
10 PCLS
20 SCREEN 1,0
30 CIRCLE(200,40),30,,1,.13,.63
40 CIRCLE(230,10),52,,1,.29,.48
50 GOTO 50
```

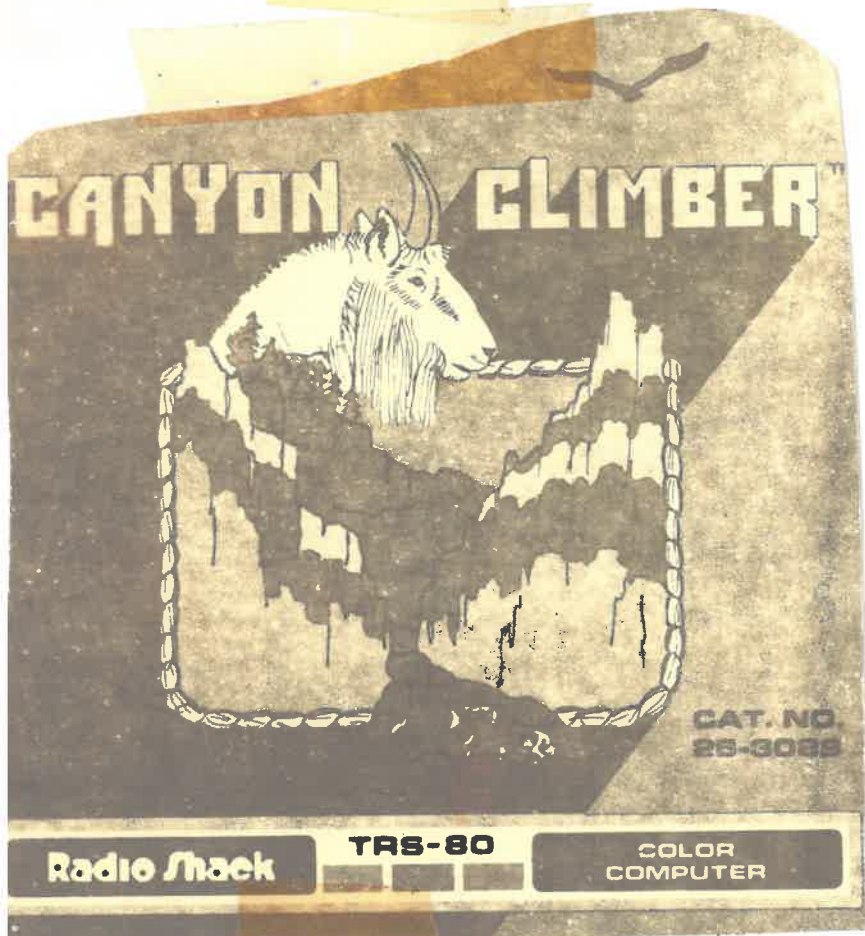
To exit both of these programs, just press the <BREAK> key.



ANDRONE-

Your computer has been invaded by memory-eating data bugs. Call on Androne, a user-controlled robot to hunt through your memory banks and 'de-bug' them

.....\$19.95

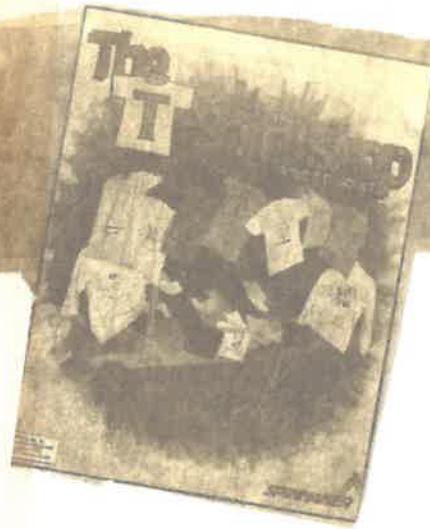


CANYON CLIMBER-

The object of this game is to gather as many points as possible while avoiding the hazards along the way, such as cantankerous mountain goats, arrow-shooting indians, and rock-dropping EAGLES.....

.....\$29.95

T-Shirt Shop



Get Started

The first thing to do is to boot up T-Shirt Shop. You'll be greeted by an easy to understand menu that lets you see everything the program can do at a glance. You can LOAD pictures from the picture disk, DRAW your own pictures, TYPE in any slogan you can think of, and COLOR in your pictures.



Choose a Graphic

Now choose LOAD from the menu. You can choose from more than 50 supplied graphics. Hollywood celebrities, political and historical figures as well as plants and animals represent some of the categories included. For a change, you can draw your own picture. In either case, once you choose a picture, the outline will appear on the screen, ready to be colored.



Paint It

Here's your chance to show your artistic ability. Using the palette of colors, the brushes and the spraycans, you can paint a rainbow of color—you can even color in the picture to match your eyes. If you want, the program will automatically paint the picture with colors you choose.



Add Type

You've got a beautifully colored picture now. Go to the TYPE section, and choose from a variety of type styles. Name your picture, or attach some absurd sayings. Create catchy political slogans, humorous sayings, or something incredibly tacky.



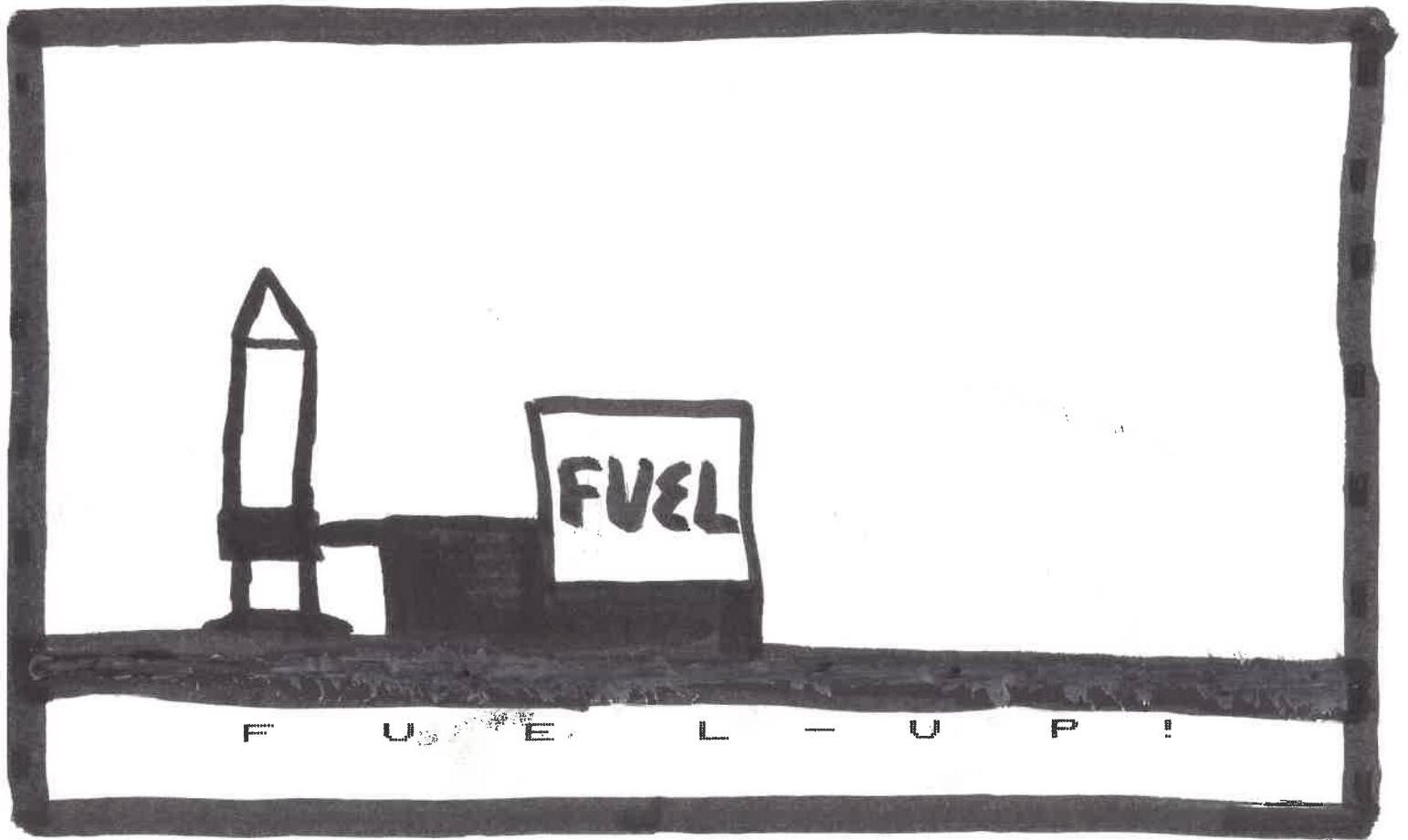
Print It

Print your shirt design onto the special iron-on transfer paper (free sheets are included). With T-Shirt Shop, what you see on the screen is exactly what you'll get on your t-shirt. The paper will work with any ribbon—even in color—and will transfer perfectly to any t-shirt. Print your design, iron the transfer onto your shirt and you're in business. Impress your friends! Wear them into the office, to the beach, or to a wedding. T-shirts make great gifts, too!

T-Shirt Shop is the only program that allows you to design, paint and create your own t-shirts. In just minutes you'll be wearing your creations. Be the first on your block with a custom designed t-shirt, sweatshirt or even underwear...from T-Shirt Shop.

THE

PROGRAMMER



S E P T E M B E R

FUEL-UP BY: DAVID McNALLY

```
0 X=39
1 CLEAR 1000
5 CLS(0)
10 FOR N=2 TO 60
12 SET(N,31,1)
13 NEXT N
14 FOR T=26 TO 30
15 SET(38,T,5):SET(44,T,5)
16 NEXT T
17 SET(39,26,5)
18 SET(40,27,5):SET(41,28,5)
19 SET(42,29,5):SET(43,30,5)
21
SET(43,26,5):SET(42,27,5):SET(40,2
9,5)
22 SET(39,30,5)
23 FOR Q=31 TO
50:SET(Q,16,5):SET(Q,25,5)
24 NEXT Q
25 FOR A=16 TO
25:SET(31,A,5):SET(50,A,5)
26 NEXT A
27 FOR N=26 TO 29
28 SET(34,N,8)
29 NEXT N
30 FOR B=20 TO 33
31 SET(B,29,8)
32 NEXT B
34 FOR N=22 TO 29
35 SET(20,N,8)
36 NEXT N
38 FOR F=24 TO 30
39 SET(6,F,3):SET(15,F,3)
40 NEXT F:SET(15,23,8)
42 FOR G=6 TO 15
44 SET(G,24,3)
45 NEXT G
47 FOR L=16 TO 19
48 SET(L,22,8)
49 NEXT L:SET(15,22,8)
51 FOR W=20 TO 23:'SPACESHIP
53 SET(8,W,7):SET(13,W,7)
54 NEXT W
56 FOR L=8 TO 13
57
SET(L,22,7):SET(L,20,7):SET(14,22,
7)
59 NEXT
L:SET(7,22,7):SET(14,22,7)
60 'WORD GAS
62 FOR N=18 TO 22
63
SET(33,N,3):SET(36,N,3):SET(38,N,3
):SET(42,N,3):SET(44,N,3):SET(48,N
,3)
64
RESET(36,19):RESET(48,19):RESET(44
,21)
65 SET(35,20,3):NEXT N
67 FOR G=33 TO 36
```

```
68 SET(G,18,3):SET(G,22,3)
69 NEXT G
70 FOR Z=38 TO 42
71 SET(Z,18,3):SET(Z,20,3)
72 NEXT Z
73 FOR B=44 TO 48
74
SET(B,18,3):SET(B,20,3):SET(B,22,3
)
75 NEXT
B:PRINT@163,"":PRINT@131,"":PRINT@
99,""
76 PRINT@164,"1 2 3 4 5 6 7 8 9
10"
77 POKE
280,PEEK(275):H=RND(5):N=RND(5)
78 PRINT@33,H+"N"="":INPUT A$
80 IF A$="1"THEN GOSUB 500
81 IF A$="2" THEN GOSUB 550
82 IF A$="3"THEN GOSUB 600
83 IF A$="4" THEN GOSUB 650
84 IF A$="5"THEN GOSUB 700
85 IF A$="6"THEN GOSUB 750
90 IFA$="7"THENGOSUB800
91 IF A$="8"THENGOSUB850
92 IF A$="9"THENGOSUB900
93 IF A$="10"THEN GOSUB910
500 IF VAL(A$)=N+H THEN 515
501 CLS
502 GOTO 1000
515 GOTO 516
516 PRINT@33,"GOOD WORK"
517 GOTO 2000
550 IF VAL(A$)=H+N THEN 565
551 CLS
552 GOTO 1000
565
PRINT@132,CHR$(128)CHR$(128);CHR$(
128)
566 PRINT@33,"GOOD WORK"
567 GOTO 2000
600 IF VAL(A$)=H+N THEN 615
601 CLS
602 GOTO 1000
615
PRINT@132,CHR$(128)CHR$(128)CHR$(1
28)CHR$(128)CHR$(128)
616 PRINT@33,"GOOD WORK"
617 GOTO 2000
650 IF VAL(A$)=H+N THEN 665
651 CLS
652 GOTO 1000
665
PRINT@132,CHR$(128)CHR$(128)CHR$(1
28)CHR$(128)CHR$(128)CHR$(128)CHR$
(128)
666 PRINT@33,"GOOD WORK"
667 GOTO 2000
700 IF VAL(A$)=H+N THEN 715
701 CLS
702 GOTO 1000
```



```

715
PRINT@132,CHR$(128)CHR$(128)CHR$(1
28)CHR$(128)CHR$(128)CHR$(128)CHR$
(128)CHR$(128)CHR$(128)
716 PRINT@33,"GOOD WORK"
717 GOTO 2000
750 IF VAL(A$)=H+N THEN 755
751 CLS
752 GOTO 1000
755
PRINT@132,CHR$(128)CHR$(128)CHR$(1
28)CHR$(128)CHR$(128)CHR$(128)CHR$
(128)CHR$(128)CHR$(128)CHR$(128)CH
R$(128)
756 PRINT@33,"GOOD WORK"
757 GOTO 2000
800 IF VAL(A$)=H+N THEN 809
801 CLS
802 GOTO 1000
809 Z$=CHR$(128)+CHR$(128)
810
PRINT@132,Z$+Z$+Z$+Z$+Z$+Z$+CHR$(1
28)
811 PRINT@33,"GOOD WORK"
812 GOTO 2000
850 IF VAL(A$)=H+N THEN 855
851 CLS
852 GOTO 1000
855
C$=CHR$(128)+CHR$(128)+CHR$(128)+C
HR$(128)
856
PRINT@132,C$+C$+C$+CHR$(128)+CHR$(
128)+CHR$(128)
857 PRINT@33,"GOOD WORK"
858 GOTO 2000
900 IF VAL(A$)=H+N THEN FOR T=1
TO 17:D$=D$+CHR$(128):NEXT
T:PRINT@132,D$:GOTO 912
901 CLS
902 GOTO 1000
903 PRINT@164,"1 2 3 4 5 6 7 8 9
10"
910
D$=CHR$(128)+CHR$(128)+CHR$(128)+C
HR$(128)+CHR$(128)
911
PRINT@132,D$+D$+D$+CHR$(128)+CHR$(
128)+CHR$(128)+CHR$(128)+CHR$(128)
912 PRINT@33,"GOOD WORK"
913 GOTO 2000
950 IF VAL(A$)=H+N THEN 955
951 CLS
952 GOTO 1000
955
F$=CHR$(128)+CHR$(128)+CHR$(128)+C
HR$(128)+CHR$(128)
956
PRINT@132,F$+F$+F$+F$+CHR$(128)+CH
R$(128)+CHR$(128)
957 PRINT@33,"GOOD WORK"
958 GOTO 2000

```

```

1000 CLS:PRINT"SORRY,THAT'S THE
WRONG AMOUNT OF GAS. BETTER LUCK
NEXT TIME."
1001 FOR J=1 TO 4000:NEXT
J:CLS:END
2000 FOR L=1 TO 1050:NEXT L:FOR
W=20 TO 23
2001 RESET(8,W):RESET(13,W)
2002 NEXT W
2003 FOR L=8 TO 13
2004 RESET(L,22):RESET(L,20)
2005 NEXT
L:RESET(7,22):RESET(14,22)
2006 FOR L=1 TO 2050:NEXT
L:CLS(0)
2008 FOR H=15 TO
20:SET(H,6,7):SET(H,8,7):NEXT H
2009 FOR V=6 TO
9:SET(15,V,7):SET(20,V,7):NEXT V
2010 SET(14,8,7):SET(21,8,7)
2011
SET(16,11,2):SET(18,11,4):SET(20,1
1,2):SET(17,12,2):SET(19,12,2):SET
(18,14,4)
2012 FOR DLAY=1 TO 3000:NEXT DLAY
2013 GOTO 1

```


"The magic guess"

```
5 cls
```

```
10 ?"Think of a number 1 through 10"
```

```
12 input"press<enter>when ready";a$
```

```
14 cls
```

```
16 ?"double it":?"press<enter>when ready":input b$
```

```
18 ?"add 4 and divide by 2"
```

```
20 ?"press<enter>when ready":input c$
```

```
22 ?"please type in your answer(not the number you picked).":input d$
```

```
24 cls
```

```
26 ?"your number is"D$-2
```

note:in lines 22 and 26 you might have to take out the <\$> after the
<d>

THE DEADLY LAUNCH
BY:KEVIN & DAVID

```
5  CLS
10 PRINT"THE DEADLY LAUNCH"
14 PRINT"BY:KEVIN AND DAVID"
15 PRINT:PRINT:PRINT
16 PRINT"YOU ARE IN A SHUTTLE.  SOMETHIN
G WENT WRONG WITH THE COMPUTERS.  THERE
IS A OVERHEAT ON BOOSTER B."
18 PRINT"DO YOU CHOOSE TO TAKE OFF THE W
AY IT IS NOW OR. . ." ;
20 PRINT"IGNITE BOOSTER A AND TAKE OFF."
22 PRINT:PRINT:PRINT"(TAKE OFF OR LAUNCH
WITH A)"
24 INPUT A$
26 IF A$="TAKE OFF" THEN PRINT" SORRY, Y
OU EXPLODED":END
28 PRINT"YOU HAVE NOW LAUNCHED"
30 PRINT"NUMBER OF OXYGEN TANKS:4 NUMBER
OF TANKS FULL:1  TOTAL TIME:12 HRS."
32 PRINT"10 1/2 HRS.  TO GET TO THE NEAR
EST SPACE STATION.  12 1/2 TO GET BACK H
OME."
34 PRINT"DO YOU WANT TO GO TO THE STATIO
N OR TRY TO GET BACK HOME?"
36 PRINT"(HOME OR STATION)"
38 INPUT B$
40 IF B$="HOME" THEN PRINT"SORRY, YOU RA
N OUT OF AIR.  BETTER LUCK NEXT TIME":EN
D
42 CLS
44 PRINT"YOU MADE IT TO THE STATION.  YO
U NOW HAVE 3 TANKS OF AIR LEFT."
46 PRINT"ARE YOU READY TO GO HOME NOW?"
48 PRINT"YES OR NO"
50 INPUT C$
52 IF C$="YES" THEN G0
54 IF C$="NO" THEN PRINT"YOU GOT TO THE M
OON.  YOU ARE A HERO FOR MAKING IT ALIVE
.  THANK-YOU FOR PLAYING." :END
60 PRINT"YOU ARE NOW SAFE AT HOME.  THAN
K-YOU FOR PLAYING." :END
```

NOTE:After typing in this program, you may want to add in some cls's(On a Commodore use PRINT CHR\$(147). On a Apple, use HOME.)

PROGRAMMING THE TRS-80

Last month's issue of 'TRS-80 COMPUTING' you learned about 3 kinds of commands: INPUT, PRINT, & GOTO. This month you will learn how to add, subtract, multiply, and divide. Below shows the signs to use:

+ =ADD
- =SUBTRACT
* =MULTIPLY
/ =DIVIDE

A-1 Type this:

PRINT 2+2 <ENTER>

This will print 2+2 on the screen. Now let's see the answer.

A-2 Type: PRINT 2+2 <ENTER>

Now you see the answer.

What is the difference between A-1 & A-2?

QUESTION SHEET FOR KIDS

1. Do you have a computer (is the computer yours)?
2. What kind do you have?
3. Do you like it? Why or why not?
4. Do you program it yourself?
5. Do you have a lot of software for it?
6. Do you do schoolwork on it?
7. Do you use it just for games or to learn from it or both?
8. Do you like our magazine?
9. Do you type out programs from our magazine?
10. Do you have any programs for us? If so, send it to our address. (see bottem)
11. What don't you like about our magazine?
12. Do you have any comments?
13. How old are you?

NOTE: If you send us this sheet back filled out, we will send a free program for your age.

Send it to:
Joey Ahern
65 Oak Road
Canton, MA 02021

SEND STAMPS PLEASE!!

HELP WITH DRAWING PICTURES

In the back of most books that come with the computer (esp. the TRS-80) there is a graph sheet. Take it out of your book and always use pencil on it (unless your making copys of it). Try the following:

1. Draw something on the sheet staying within the squares (blocks).

2. Now set each block.

EX.

1	2	3	4	5
2				
3				

To set, type SET(4,2,C).

C=The color code 1-8.

Look above at the mini-graph. The top and side numbers tell what lines it's on. (the colored square) The first number is talking about the top row on the graph. The second#-the side row of numbers.

If there is a long strip do it this way.

1	2	3	4	5	6	7
2						
3						
4						

Above is an example. The shaded area is the strip you would type.

any letter

```
FOR X=3 TO 6
```

```
SET(X,3,C);NEXT X
```

Remember C is the color code 1-8.

GOOD LUCK!

COMPUTER SECRETS

Do you know that some keys have hidden functions?

Try these:

SHIFT + ↑

SHIFT + ↓

SHIFT + →

SHIFT + ←

SHIFT + CLEAR

SHIFT + [0]

Now type! To go back press SHIFT + [0].

Other things:

Did you know that when you type RUN you erase everything in the computer's memory except the program. If you want to start a program without erasing the memory then type:

GOTO (and the first line number)

MACHINE SPECIFICS

Donald Duck's Playground is a new Walt Disney Computer Software game (Sierra On-Line;\$30)for the color computer. If you run it on a CoCo 3 you will be shocked to notice that it will show up black & white on a RGBI moniter. The reason for this is that this program was not intended for the Color Computer 3, but for the 64K CoCo 1 or 2! You must remember that Tandy has sold more than a million of the earlier CoCo models, and that most of the software run on them.

BACK TO DONALD DUCK.Donald duck's playground is an economics and civics lesson disguised as a game. It's rated for youngsters aged 7 to 11. The object of the game is to guide Donald through various jobs so he can earn enough money to buy playground equipment for his nephews. The harder he works, the more money he earns and the more elaborate playground equipment he can buy.

After the purchases are made, the equipment is delivered to the playground and you have to arrange it so that Donald's nephews can use it safely

In the back of the manual, there are other activities for kids, which have nothing to do with the computer.

FLIGHT!

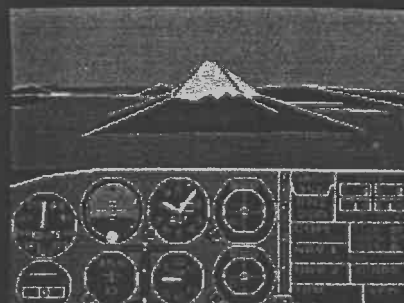
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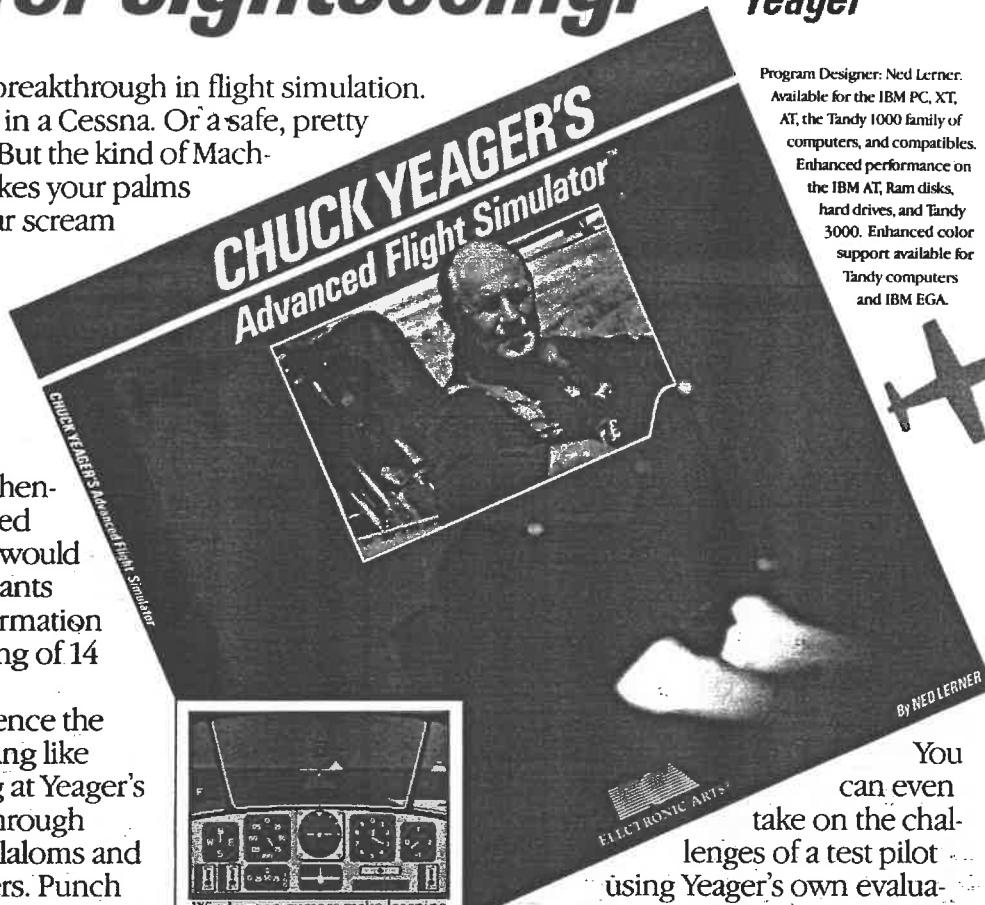
"At Mach 3 you don't have time for sightseeing." —Chuck Yeager

You are looking at a breakthrough in flight simulation. Not just a sleepy ride in a Cessna. Or a safe, pretty collection of scenery. But the kind of Mach-speed simulation that makes your palms sweat — and your inner-ear scream for mercy.

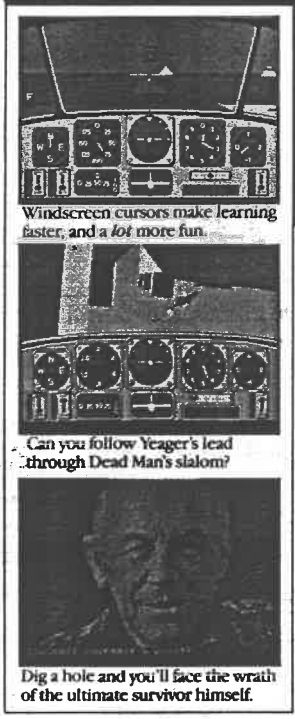
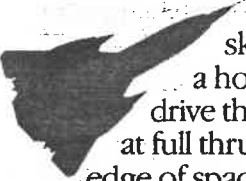
Chuck Yeager co-piloted the entire design. We gave him Mach-speed graphics drivers, state-of-the-art 3-D terrain modeling, and authentic aerodynamics. He added things only Chuck Yeager would think of, like seat-of-the-pants in-air flight instruction, formation flying and even test piloting of 14 different aircraft.

Now you can experience the fun and excitement of flying like never before. Streak along at Yeager's wing — flying formation through gates, slaloms and skyscrapers. Punch a hole in the sky and drive the SR-71 "Blackbird" at full thrust to the very edge of space. Climb into the P-51 "Mustang" and race wide-open, full throttle against six computer-controlled adversaries.

The action is so fast, even experienced pilots can "auger in." Which is why Yeager insisted on windscreens cursors that teach you in mid-flight: from flawless take-offs and flare landings to aileron rolls, Cuban 8's, even Hammerhead stalls.



Program Designer: Ned Lerner.
Available for the IBM PC, XT, AT, the Tandy 1000 family of computers, and compatibles. Enhanced performance on the IBM AT, Ram disks, hard drives, and Tandy 3000. Enhanced color support available for Tandy computers and IBM EGA.



You can even take on the challenges of a test pilot using Yeager's own evaluation charts. Strap yourself into the Bell X-1 and shatter the sound barrier. Check out Yeager's three supersonic X-jets and enter the "realm of the unknown." Push them too hard and you'll discover the gut-wrenching sensation of hurtling toward Earth at Mach 3.

As Yeager says, the real hero is the test pilot who somehow manages to survive. So climb into the cockpit with the greatest pilot in history — and put yourself to the test.



ELECTRONIC ARTS®

HOW TO ORDER: Visit your retailer or call 800-245-4525 for direct VISA or MasterCard orders (in CA call 800-562-1112). The direct price is \$39.95 for the IBM version. To buy by mail, send a check or money order to Electronic Arts Direct Sales, P.O. Box 7530, San Mateo, CA 94403. Add \$3 for shipping and handling (\$5 Canadian). Please allow 4 weeks for delivery. Screen shots represent IBM version, others may vary. IBM is a registered trademark of International Business Machines, Inc. Software © 1987 Ned Lerner. Package Design © Electronic Arts. All rights reserved. Electronic Arts, authorized user.

Nobody's Perfect...

Game	Winner	Time to Move
1	SARGON III	5 seconds
2	SARGON III	5 seconds
3	SARGON III	15 seconds
4	SARGON III	15 seconds
5	SARGON III	30 seconds
6	Chessmaster	30 seconds
7	SARGON III	3 min
8	SARGON III	3 min

YOU CAN'T WIN THEM ALL.

We pitted Sargon III, the world champion, against the challenger. Head to head, with no punches pulled. And believe it or not, the champ lost one game to the challenger. But Sargon III beats Chessmaster 2000 almost everytime.

Sargon III is the result of more than twenty one man years of development. Sargon III will play at precisely the level of difficulty you desire. Ask Sargon III for a hint, take back a move you've already made, replay a sequence, change sides, or set up your own board for customized learning. Sargon III lets you study in detail more than 100 great games of history or review 45 classic chess problems.

all on screen. Sargon III also includes the largest library of opening moves available on any chess program.

SARGON III WRITES CHESS HISTORY

In a tournament sanctioned by the U.S. Chess Federation, Sargon III beat

a master rated 2209. That makes Sargon III the only microcomputer program ever to defeat a player at that level.

Sargon III has no trouble wiping Chessmaster 2000 off the globe. Someday, maybe a chess playing program will be able to beat Sargon III. Until then, which chess program do you want to own: the world champion or the runner-up?

(Note: The test was run on two Apple II computers. Each program played once as white and once as black at each level. Send us \$5.00 for handling, along with a postage paid return envelope and we'll send you a copy of the moves each side played.)



Sargon III is available for Apple II series, Apple Macintosh, IBM PC and Commodore 64/128 computers. You can find Sargon III at your local retailer or call 1-800-826-0706. Illinois residents call 1-800-826-1330. Only MasterCard, VISA and American Express accepted for phone orders.

HAYDEN

SOFTWARE

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If you would like to have an advertisement
printed in 'TRS-80's Classified section'
Just send it to: TRS-80 Computing, 65 Oak Road
Canton, MA 02021; It is 2 cents a letter.

ATTN: JOEY AHERN