

YESTERDAY'S NEWS

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30 Years Ago...

Historical Information taken from Bill Gaskills TIMELINE

AUGUST 1991:

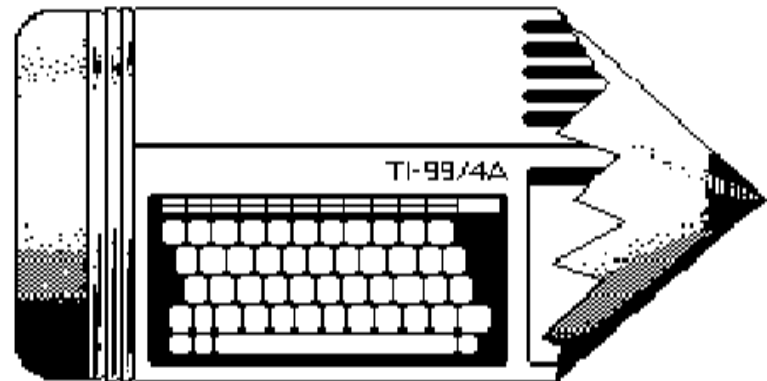
Asgard Software releases Tris-9640, Typewriter-9640, Page Pro Sideways Picture Printer, and Thumbnails for the Myarc Geneve 9640 computer.

Bill Gaskill releases Events Calendar for TI-Base. It is a public domain application, written in the TI-Base Command File programming language.

Pierre Delfort of Bagnols, France announces the availability of a newsletter on disk for any TI-99/4A owners wishing to subscribe.

Ben Hatheway of Santa Clara, CA releases a version of Stu Olsen's Mass Transfer that will work with the Myarc HFDC (Hard and Floppy Disk Controller Card). It is a 40-column display version of Mass Transfer 4.3 that allows the user to use hard drive paths when uploading or downloading using Xmodem or Mass Transfer "Vmodem". The program will run on either TI or 9640. This release is 40 columns only. Fairware. An 80-column version modified by Randy Moore for Myarc Geneve 9640 users is also announced.

Bill Gaskill releases a free Names Data Base for users of TI-Base 3.02 or higher. The file contains over 1350 names and addresses of 99ers and TI-99 supporters.



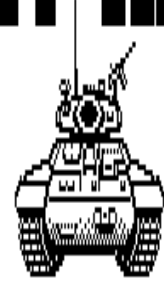
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NIGHT MISSION



MICROPENDIUM
February 1986
Volume 3, Number 1

By Robert Carmany

When I read the descriptive literature about Night Mission from Millers Graphics ("award winning program... outstanding graphics") my first thought was (yawn!) another shoot 'em up game with probably exaggerated promotional hype. After all, how many software packages live up to the promotional literature? But, it is produced by Millers Graphics so just maybe....

Night Mission poses an immediate problem when it comes time to review it. Do you review that package as an arcade game or as a programming tutorial? It qualifies in both categories.

Performance: Night Mission is produced on cassette tape with a total of five programs on both sides of the tape. One side contains the joystick and keyboard versions of the program for cassette-based systems and the other side has the joystick and keyboard programs for disk systems along with a LOADER program. All of the programs loaded flawlessly and the instructions in the manual (more on it later!) were explicit, clear and well-written.

The game itself is simple and easy to understand. You are a helicopter pilot charged with a covert rescue mission. The object of the mission is to rescue and transport as

See "NM", Page 5

TI CLASSROOM



**TIPS FROM THE
TIGERCUB**
By Jim Peterson

NUMBER
27



Now, here is the new, and final, version of the Tigercub Menu Loader.

```
100 !by A. Kludge/M. Gordon/
T. Boisseau/J. Peterson/G. S
teffen/etc.Version #10, 9/86
110 CALL PEEK(8198,A):: IF A
<>170 THEN CALL INIT
120 OPTION BASE 1 :: DIM PG$(
127),V(127,3),LL$(400):: DN
$="1" :: CALL LOAD(-31806,16
):: ON ERROR 130 :: GOTO 160
130 DISPLAY AT(12,9)ERASE AL
L:"I/O ERROR" :: RUN 100
140 @,@$,@@, A,A$,B,B$,C,CF$,
D$,DN$,D1$,D2$,E,F,FLAG,I,J,
K,KD,KK,LL$( ),LX,M,M$,N$,N,O
FLAG,P,PFLAG,PG$( ),PP,PP$,Q$
,S,ST,T$( ),TT,UT,V( ),W$,X,X
X,Y,K2,S2
150 CALL LINK :: CALL PEEK ::
: CALL KEY :: CALL SCREEN ::
: CALL COLOR :: CALL CLEAR ::
: CALL VCHAR :: CALL SOUND ::
: CALL CHAR :: !@P-
160 CALL CLEAR :: CALL LOAD(
8196,63,248):: CALL LOAD(163
76,67,85,82,83,79,82,48,8)
170 CALL LOAD(12288,129,195,
126,165,129,153,102,60)
180 CALL LOAD(12296,2,0,3,24
0,2,1,48,0,2,2,0,8,4,32,32,3
6,4,91):: CALL LINK("CURSOR"
)
190 CALL CLEAR :: FOR S=1 TO
14 :: CALL COLOR(S,7,16)::
NEXT S :: CALL COLOR(0,2,16)
:: CALL CHAR(48,"003A444C546
444B8")
200 T$(1)="d/f" :: T$(2)="d/
v" :: T$(3)="i/f" :: T$(4)="
i/v" :: T$(5)="pro" :: ON WA
RNING NEXT
210 CALL SCREEN(5):: CALL UC
HAR(1,31,1,96):: DISPLAY AT(
1,4):"TIGERCUB MENU LOADER"
```

```
220 DISPLAY AT(12,6):"DRIVE?
"&DN$ :: ACCEPT AT(12,13)SI
ZE(-1)VALIDATE("1234"):DN$ :
: D$="DSK"&DN$&" "
230 OPEN #1:D$,INPUT ,RELATI
VE,INTERNAL :: INPUT #1:N$,A
,J,K :: DISPLAY AT(1,2)SIZE(
27):SEG$(D$,1,4)&" - DiskNam
e="&N$;
240 DISPLAY AT(2,2):"Availab
le=";K;"Used=";J-K:" Prog Fi
lename Size Type":-----
-----" :: I,U
T=0 :: TT=J-K
250 FOR X=1 TO 127 :: IF X/2
0<>INT(X/20)THEN 280
260 DISPLAY AT(24,1):"Choice
? Enter for more 0" :: ACCEP
T AT(24,24)VALIDATE(DIGIT)SI
ZE(-3):K :: IF K=0 THEN 270
:: IF K>0 AND K<N+1 THEN 500
ELSE 260
270 X=1
280 N=N+1 :: INPUT #1:PG$(N)
,V(N,1),V(N,3),V(N,2):: B$=S
TR$(V(N,2)): IF B$="0" THEN
B$=""
290 IF LEN(PG$(N))=0 THEN 33
0
300 DISPLAY AT(X+4,1):USING
"### ***** ### ## ##
#":N,PG$(N),V(N,3),T$(ABS(V(
N,1))),B$,CHR$(ABS(V(N,1)<0
)*57+32):: UT=UT+V(N,3)
310 CALL KEY(0,KK,ST):: IF S
T=0 THEN 320 :: FLAG=1 :: GO
TO 330
320 NEXT X
330 DISPLAY AT(X+4,1):USING
"### Quit":N :: DISPLAY AT(
X+5,1):USING "### Delete":N
+1
340 IF UT=TT OR FLAG=1 THEN
360
350 FOR @=1 TO 10 :: DISPLAY
AT(3,25):" " :: DISPLAY AT(
3,25):UT :: CALL SOUND(-99,1
```

```
10,0,-4,0):: NEXT @
360 IF FLAG=1 THEN 370 :: DI
SPLAY AT(X+4,13):USING "###
Print":N+2 :: DISPLAY AT(X+
5,13):USING "### Rescan":N+
3
370 DISPLAY AT(X+6,5):"Choic
e?" :: ACCEPT AT(X+6,16)SIZE
(-3)VALIDATE(DIGIT):K
380 IF FLAG=1 THEN 400
390 IF K=N+2 THEN 780 ELSE I
F K=N+3 THEN CLOSE #1 :: N=0
:: GOTO 190
400 IF K<N AND K<>N+1 THEN
490
410 IF K=N THEN CALL CLEAR :
: CLOSE #1 :: END
420 DISPLAY AT(X+5,12)SIZE(1
2):" #?" :: ACCEPT AT(X+5,15
)SIZE(3)VALIDATE(DIGIT):KD :
: IF KD<1 OR KD>N THEN 420
430 IF V(KD,1)>0 THEN 450
440 FOR J=1 TO 10 :: DISPLAY
AT(11,1):" " : " PROTECTED -
CANNOT DELETE:" " :: DISPL
AY AT(12,1):" " :: NEXT J ::
GOTO 470
450 DISPLAY AT(X+6,1)SIZE(27
)BEEP:" Verify - Delete ";PG
$(KD);"?" :: DISPLAY AT(X+6,
28)SIZE(1):"V" :: ACCEPT AT(
X+6,28)SIZE(-1)VALIDATE("V"
):Q$ :: IF Q$<>"V" THEN 470
460 DELETE D$&PG$(KD)
470 CLOSE #1
480 CALL VCHAR(1,3,32,672)::
N=0 :: X=0 :: FLAG=0 :: GOT
O 210
490 IF K<1 OR K>127 OR LEN(P
G$(K))=0 THEN 330
500 A=ABS(V(K,1)): B=V(K,2)
:: IF A=5 OR A=4 AND V(K,2)=
254 THEN 860
510 DISPLAY AT(12,1)ERASE AL
L:"Print to ? S": "(P)rinte
r?": "(S)creen?": "(D)isk?" ::
ACCEPT AT(12,12)SIZE(-1)VAL
IDATE("PSD"):Q$ :: IF Q$="S"
THEN PP=0 :: GOTO 540
520 IF Q$="P" THEN 530 :: DI
SPLAY AT(12,1)ERASE ALL:"Fil
ename? DSK" :: ACCEPT AT(12,
14):CF$ :: CF$="DSK"&CF$ ::
C=(SEG$(D$,4,1)=SEG$(CF$,4,1
)): GOTO 540
530 CALL CLEAR :: PP=3 :: GO
SUB 840
540 CALL CLEAR :: CALL SCREE
```

```
N(16):: ON A GOSUB 5500,560
0,6200,6300 :: IF Q$="D" THE
N 4800 :: ON A GOTO 5700,570
0,6400,6400
550 @=$D$&PG$(K):: IF A=1 TH
EN OPEN #2:@$,INPUT ,FIXED E
LSE IF A=2 THEN OPEN #2:@$,I
NPUT ELSE IF A=3 THEN OPEN #
2:@$,INPUT ,INTERNAL,FIXED E
LSE OPEN #2:@$,INPUT ,INTERN
AL
560 IF Q$="D" THEN 570 :: ON
A GOTO 630,630,680,680
570 XX=XX+1 :: IF A<3 THEN L
INPUT #2:LL$(XX)ELSE INPUT #
2:LL$(XX)
580 LX=LX+LEN(LL$(XX)): IF
EOF(2)<>1 AND LX<8000 AND XX
<401 THEN GOTO 570 :: ELSE I
F C=-1 THEN D1$="master" ::
D2$="copy" :: GOSUB 770
590 IF OFLAG=1 THEN GOTO 610
ELSE OFLAG=1
600 IF A=1 THEN OPEN #4:CF$,
OUTPUT,FIXED B ELSE IF A=2 T
HEN OPEN #4:CF$,OUTPUT,VARIA
BLE B ELSE IF A=3 THEN OPEN
#4:CF$,OUTPUT,INTERNAL,FIXED
B ELSE OPEN #4:CF$,OUTPUT,I
NTERNAL,VARIABLE B
610 FOR J=1 TO XX :: PRINT #
4:LL$(J):: NEXT J :: XX,LX=0
:: IF EOF(2)THEN CLOSE #4 :
: C,OFLAG=0 :: GOTO 660
620 IF C=-1 THEN D1$="copy"
:: D2$="master" :: GOSUB 770
:: GOTO 570 ELSE GOTO 570
630 LINPUT #2:W$ :: PRINT #P
P:W$ :: IF EOF(2)THEN 660
640 CALL KEY(0,K,S):: IF S=0
THEN 630
650 CALL KEY(0,K2,S2):: IF S
2<1 THEN 650 ELSE 630
660 CLOSE #1 :: CLOSE #2 ::
PRINT " >>>press any Key<<
<"
670 CALL KEY(0,K,ST):: IF ST
<1 THEN 670 ELSE 480
680 IF EOF(2)=1 THEN 660 ::
INPUT #2:M$ :: IF LEN(M$)=0
THEN 700
690 PRINT #PP:M$ :: GOTO 750
700 FOR V=1 TO 8 :: @@=ASC(S
EG$(M$,V,1)): IF @@<32 OR @
@>127 THEN 720
710 NEXT V :: GOTO 690
720 F=1 :: E=ASC(SEG$(M$,1,1
)): M=ASC(SEG$(M$,2,1)): I
```

```

F E=0 AND M=0 THEN GOTO 740
ELSE IF E>128 AND M>128 THEN
  F=-1 :: E=255-E :: M=256-M
730 FOR I=1 TO 6 :: M=M+(ASC
(SEG$(M$,I+2,1))/100^I) :: N
EXT I :: M=M*F*100^(E-64)
740 PRINT #PP:M
750 CALL KEY(0,K,S):: IF S=0
THEN 680
760 CALL KEY(0,K2,S2):: IF S
2<1 THEN 760 ELSE 680
770 DISPLAY AT(12,1)ERASE AL
L:"Remove ";D1$;" disk": "I
nsert ";D2$;" disk": "Press
ENTER" :: CALL KEY(0,K,ST):
: IF ST=0 THEN 770 ELSE CALL
CLEAR :: RETURN
780 GOSUB 840 :: PRINT #3:SE
G$(D$,1,4)&" - Diskname=" &N
$
790 PRINT #3:RPT$("*",28):"A
vailable=";358-UT;"Used=";UT
:RPT$("~",28)
800 PRINT #3:"FILENAME SIZE
TYPE":RPT$("~",28)
810 FOR P=1 TO N-1 :: PRINT
#3:PG$(P);TAB(15);V(P,3);TAB
(20);T$(ABS(V(P,1)));TAB(25)
;V(P,2);TAB(31);CHR$(89*ABS(
V(P,1)<0)):: NEXT P
820 DISPLAY AT(12,3)ERASE AL
L:"(P) to print again": " (R
) to rescan": " (Q) to quit"
830 ACCEPT AT(15,4)VALIDATE(
"PQR")SIZE(-1)BEEP:Q$ :: IF
Q$="P" THEN 780 :: CLOSE #1
:: N=0 :: IF Q$="R" THEN 190
ELSE END
840 IF PFLAG=1 THEN RETURN E
LSE PFLAG=1 :: DISPLAY AT(24
,1):"PRINTER NAME? PIO" :: A
CCEPT AT(24,15)SIZE(-14):PP$
850 OPEN #3:PP$,VARIABLE 132
:: PRINT #3:CHR$(27);"B";CH
R$(2);CHR$(27);"M";CHR$(10);
CHR$(27);"N";CHR$(6):: RETUR
N
860 CLOSE #1 :: IF SEG$(PG$(
K),LEN(PG$(K)),1)="*" THEN D
ISPLAY AT(12,1)ERASE ALL:"RE
TURN TO BASIC AND LOAD BY":
TYPING OLD ";D$PG$(K):: STO
P
870 CALL PEEK(-31952,A,B)::
CALL PEEK(A*256+B-65534,A,B)
:: C=A*256+B-65534 :: A$=D$&
PG$(K):: CALL LOAD(C,LEN(A$)
)

```

```

880 FOR I=1 TO LEN(A$):: CAL
L LOAD(C+I,ASC(SEG$(A$,I,1))
):: NEXT I :: CALL LOAD(C+I,
0)
890 CALL VCHAR(1,3,32,672)::
CALL SCREEN(8):: FOR S=0 TO
14 :: CALL COLOR(S,2,1):: N
EXT S :: DISPLAY AT(12,2):"L
OADING ";A$
900 RUN "DSKX.1" 234567890
This version turns off the
Quit Key, restarts itself
rather than crashing on an
I/O error, and has pre-scan
for faster startup. It
displays disk name, sectors
available and sectors
presumably used - it also
totals up actual sectors
used and sounds a warning if
any sectors are not
accounted for.
It lists up to 127 programs
and files by number,
filename, number of sectors,
program or file type, file
record length, and
write-protection. It will
stop for menu selection on
any keypress or at the end
of each screen, continuing
on Enter. It will load and
run any program that can run
from Extended Basic,
displaying its filename
while loading. If the
filename ends in an
asterisk, it will warn you
to return to Basic. It will
delete any unprotected
program or file, after first
requiring verification by
filename, and will inform
you if the file is
protected. It will read any
readable file, including
internal numeric, and list
it to screen or printer. It
will dump a catalog of the
disk to your printer, and it
will offer the option of
quitting or rescanning the
disk or another disk. And
it's free, I donot even want
a freeware donation - but I
would appreciate if you
would take a look at my
catalog and see if,

```

somewhere among those 140 programs, there might be something you would be willing to pay \$3 for? The Menu Loader is included as a free bonus on every disk I sell!

```

100 CALL CLEAR :: RANDOMIZE
:: DISPLAY AT(3,4):"TIGERCUB
MATH PUZZLE"
105 DISPLAY AT(6,1):"Level 1
, 2, 3 or 4?" :: ACCEPT AT(6
,21)VALIDATE("1234"):L$ :: L
=VAL(L$)
106 IF L<3 THEN M$="Insert +
, -, or * (multiply)" ELSE M
$="Insert +, -, * (multiply)
or / (divide)"
110 DISPLAY AT(5,1):M$;" bet
ween the digits": " to equal
the total": "Type Q to give
up"
130 DISPLAY AT(12,1):" " ::
T,X=INT(9*RND+1):: M$=STR$(X
):: Z$=M$&" "
140 FOR J=1 TO 4 :: V(J)=INT
(9*RND+1):: @=3+ABS(L>2):: Z
=INT(@*RND+1):: ON Z GOSUB 2
40,250,260,270 :: Z$=Z$&STR$
(V(J))&" " :: NEXT J
150 IF L/2<>INT(L/2)AND T<>I
NT(T)THEN 130 :: Z$=Z$&"="&S
TR$(T)
160 DISPLAY AT(12,1):Z$ :: D
ISPLAY AT(18,1):" " :: DISPL
AY AT(20,1):" " :: DISPLAY A
T(22,1):" "
170 P=2 :: FOR J=1 TO 4 :: A
CCEPT AT(12,P)VALIDATE("Q+*
/")SIZE(1):S$
180 IF S$="Q" THEN 200 ELSE
IF S$="+" THEN X=X+V(J)ELSE
IF S$="-" THEN X=X-V(J)ELSE
IF S$="*" THEN X=X*V(J)ELSE
X=X/V(J)
190 P=P+2 :: NEXT J :: IF X=
T THEN 230 :: DISPLAY AT(18
,1):"WRONG!"
200 DISPLAY AT(20,1):"ANSWER
IS ";M$
210 DISPLAY AT(22,1):"PRESS
ANY KEY"
220 CALL KEY(0,K,ST):: IF ST
<1 THEN 220 :: GOTO 130
230 DISPLAY AT(18,1):"RIGHT!
" :: GOTO 210
240 M$=M$&"+"&STR$(V(J)):: T

```

Enjoy! Jim Peterson





COMPUTER SHOPPER
November 1985

By
Randy Holcomb

16/32 Memory Card
Top Radio Supply
Kit: \$75.00 + \$3.00 SH
Assembled: \$125.00
(Includes return postage)

OK, I'll admit from the start that I have a bias on this product as I helped design it with the help of Steve Borowiak from Top Radio Supply).

This product came to light from a conversation that was held a long time ago by myself, Steve and Andy Cooper (the p-System wizard of the TI Community). Andy made the realization while playing with a bus analyzer on a TI system that if you do certain things to the control lines the processor runs at the full bus speed of 3 MHz (which is the speed that the system ROM and the scratchpad RAM get accessed at). Steve and I got to thinking that if someone could put expansion memory inside the console across the 16-bit bus, Assembly Language performance of the 99/4A could be dramatically improved. The result is the 16/32 memory card which does place the 32K of memory across the 16-bit bus and does improve performance. You may have noticed that I said "Assembly Language performance" versus Basic/Extended Basic: Both Basic and Extended Basic are under the control of GPL and as such are slow (though Assembly Language routines called from these environments should run faster with the 16/32 Memory Card installed).

How much faster do programs run with the 16/32 installed? Examine Table 1 for some examples of the performance increase under the products listed.

Right about now you're probably asking "How compatible is this product? 70%? 80%? 100%? What hardware or software won't work with this card?" The answers are as follows: The card is 32K of memory that sits inside your console across the 16-bit bus, giving you increased speed and performance. If the code that you are running has software timing loops that are at all critical there is the likelihood that the code may not run properly, which is to be expected. So far, I myself have not run across a piece of legitimate software that has NOT worked with the 16/32 memory card. (I did try a "cracked" version of Atarisoft's

Dig Dug but it died as it put up the playing field, and no, I do NOT have that "cracked" version of code in my library, thank you.)

If you have any of the 128K cards there is a little surprise waiting for you: with the 16/32 card installed it will NOT recognize it as the control line is not brought out. As a matter of fact you can have a 32K card in your PEB and a 16/32 in your console and it will ignore the 32K card as well. Should you desire to have the old 32K card available, Top Radio Supply will tell you how to install a switch to do this so your 128K investment isn't thrown out the window.

I recommend the installed version unless you have access to a vacuum desoldering station or are willing to spend several hours using solder-wick attempting to desolder the TMS9900 processor from the console's motherboard. (I managed to wipe out one of my spare consoles attempting to desolder the TMS9900 from the motherboard.) Also, the Kit comes with only a 30-day warranty; and if you somehow manage to mung (modify until no good) your console during installation Top Radio Supply will charge \$50 to rectify the situation. The assembled version (where you send in the console) carries a 1-year warranty and in addition to the warranty the power supply is modified to reduce heat dissipation and to handle the increased current load required by the 16/32. Fortunately the 16/32 uses CMOS 6264 8K x 8 SRAMs so it doesn't draw that much power.

I have been running my own system with a 16/32 Memory card for over three months now and I can honestly say that it works. I have also noticed that my system doesn't crash as much as it used to. As a matter of fact during the benchmark test of assembling Fast-Term the stock system configuration would lock-up right after it displayed the "0000 ERRORS" message, while the 16/32 went to a clean end. Even if I didn't have a hand in this, I'd still buy it!

Figure 1

FUNCTION	16/32 Memory	Regular 32K
TI-Writer:		
Load of 85-sector file	33.6 secs	40.6 secs
With word-wrap off:	7.5 secs	11.5 secs
RS /to/TO/ delete 250 line	1 min. 14 secs	1 min. 50s
Multiplan:		
Sort 51 items in spreadsheet (14 chars long)	27.3 secs	39.3 secs
Editor/Assembler:		
Assemble Fast-Term	10 min. 48 secs	12 min. 17s

MUST HAVE MORE SPEED!



ENTHUSIAST '99
March 1984
Volume 2
Number 2

By
Dana Nichols

Saving the world was never so challenging or fun! Guardian, by Kevin Crowder, is the latest and by far one of the best game programs written for use with the Editor/Assembler in the present market.

Guardian is a one or two player game, and each category consists of four levels of difficulty. The object of the game is to preserve the eight energy pods that provide food, comfort and entertainment to your city. Intent on stealing these pods, evil robots (in full force) fill the screen. Once the robots steal all the pods, the city and everyone in it comes under their control and the game is over.

The action is super-fast, the graphics and color are good and the game itself can continue indefinitely. Although playing solo is exciting enough, the two-player option must be experienced to be believed.

You and your opponent are allies in combat, but are still vying for individual points. You strive for a common goal, to save the pods and the city from the evil robots, but you still can beat your opponent in total points. Strategies are involved in allowing your ally to help you rid outer space of many of the aliens, then exterminate the opponent when you feel you can blast the remaining robots single-handedly to tally your score even higher.

You have an advantage in knowing when an enemy has pilfered a pod; he turns white, the color of the pods themselves. However, when you dissolve him into oblivion to regain possession, the pod remains where the enemy was downed. This is when your peripheral vision must be at its peak. The remaining enemy robots come at the pods from any and all sides, and can pick up the stray pods at will.

Bonus pods are awarded for high scores, and you keep playing until the robots make away with all the ill-gotten booty.

Guardian is a must for the serious space game player and can be played by all ages for hours on end. The game requires the 99/4A, 32K memory expansion, disk memory system, and Editor/Assembler cartridge. Guardian is available for \$29.95 from Softmail, Incorporated, P.O. Box 745, Rockwall, TX 75087.



99'er
August 1983
Volume 2
Number 10

By
Erin
O'Conner
and
Deborah
Amity

Way out in the galaxy, hovering over a small moon in the Gamma-Hydra system, your starprobe is poised, ready to descend into who knows what nefarious Xyolian activity in their underground military base. You are calm because you don't face any personal danger. Your remote control via the NIC (Near-Infinite Communications) beam will guide the starprobe down into a cave on this moon. Your mission is to knockout the threat of Xyolian attack. When the probe reaches the Xyolian cave it must thread its way through one of two narrow openings and then through a geometrically regular maze of Xyolian construction. Along the way it will encounter fuel depots and ammo dumps, then in the lowest part of the cave defensive laser installations that must be destroyed before it can reach the bottom.

You have two types of weapons - QuasiThermite bombs and the SuperBeam. The QT bombs are effective against ammo dumps and fuel depots but have no effect on walls or laser machinery. The S-Beam is much more powerful, destroying anything in its path but uses a great deal of precious fuel and ammo - so use it only when absolutely necessary. Hovering and firing the S-Beam use up your supplies, but you can replace your limited fuel and ammo by destroying the Xyolian fuel depots and ammo dumps with the QT bomb. The S-Beam completely annihilates, so it can't be used to salvage fuel or ammo. A Pause Key allows you to freeze play and also monitor your depth, fuel, and ammo.

Starprobe 99 opens impressively with three-dimensional monolithic title letters. Less impressive are the screen instructions which follow and the screen displays of running score and amounts of fuel and ammo left. These purple letters on a black screen are difficult to read at best. Perhaps this is not a problem on the author's color TV, but for use on a TI monitor, a different color combination would have been more appropriate.


This unpromising feature is more than offset, however, by the colorful renderings of cave and maze featured in the game's successively difficult levels of play. The game

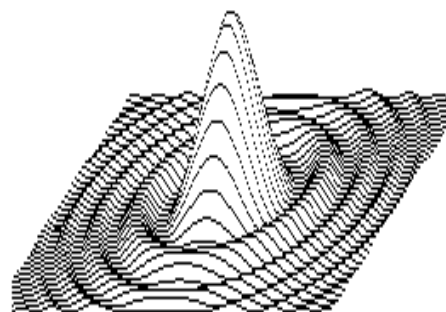
starts at an encouraging level for beginners, and the varied obstacles in succeeding levels of play prevent the game's becoming tedious.

The game makes excellent use of vertical scrolling to give the illusion of descent. The graphics and colors are eye-catching, although the self-generating maze close to the "bottom" of the Xyolian cave needs to be more sharply defined. The "play again" routine is swift, for almost continuous play.

We found though, that the starprobe is sometimes slow to respond to the Keys. Although the rate of descent (scrolling) is easily controlled via the hover-thrust Key, movements to the left or right can seem rather laborious, and at times the low response results in what seems like an unfair explosion (you lose!) of your starprobe. This is the most frustrating aspect of the game. You find yourself frantically pushing a Key while your oblivious probe continues to drift down to crash against a wall or into the path of a Xyolian laser.

And while we're quibbling, we might mention too that ammo dumps and fuel depots seem indistinguishable from one another. A player can't tell if he's restoring his fire capability or his ability to hover. The documentation is not too helpful on this point. At one point it offers the caveat, "Part of the enjoyment in a game of this type comes from the gradual discovery of the 'hidden' rules of the game." This may be true of some aspects of the game, but we would have appreciated documentation that explains how we might detect the difference between fuel depots and ammo dumps and some account of what that attractive, self-generating maze encountered at the nethermost depths of the cave might be. The objective, of course, is to go as deep as possible (5,000 M is a decent score), but the unexplained objects encountered along the way leave players feeling rather mystified, and it all seems rather inconclusive.

Despite the rather sketchy documentation and occasional lapses in performance, Starprobe 99 is engrossing. The graphics are interesting, and the graduated levels of play keep the player at the keyboard. The game is a good example of the triumph of process over product; that is, players get so absorbed in the various levels of play that they don't really mind having only a vague idea of the scenario and ultimate objective. 



"NM" Continues...

many men as you can, five at a time, to a ship waiting off-shore. All the while, you must avoid tanks, planes, missiles and enemy helicopters.

Each of the levels starts with a "Tank screen" and ends with a "Ship screen." A complete description of the game scenario and scoring is also provided.

The graphics are excellent. The characters are sharp and well-defined and the response in both joystick and keyboard versions is very good. Craig Miller and Mike McCue have used three characters to depict your helicopter flying forward, backward or in level flight. There are also multiple characters for the animated passengers who are the object of your mission.

Everything is so well done that it is difficult to believe the program is written in Extended BASIC rather than assembly language - it is of true arcade quality. The action is fast, furious and very engrossing. I had trouble getting my kids to quit playing Night Mission - so I could!

Ease of Use: The programs load easily from cassette and the disk versions are easily reloaded by following the clear, concise instructions. The basic idea of the game is simple and easy to understand. Even my 10-year-old understood the game the first time he played it without any trouble.

Documentation: The package comes with a 90-page booklet. That's right, 90 full pages! The first two sections deal with loading the game and a description of the game scenario and the scoring. Just what you would expect in a first-class game.

What follows is of special interest to those of us who are interested in the "why's" and "how's" of programming. The next section is a tutorial on Boolean functions, in particular, the function "AND". The uses of "AND" in programming applications are explained far beyond the paltry two-page discussion in your Extended BASIC manual. What's more, this short course is understandable.

The next section is a complete description of the character sets, characters, colors and variables used in the actual program. All of this is a prelude to the "meat" of the tutorial which follows.

The main thrust of this extensive documentation is a complete dissection of the program and an in-depth tutorial in Extended BASIC programming. The program itself is dissected on a line-by-line basis with each line being thoroughly explained. All of the professional "tricks of the trade" that were used to create Night Mission are explained. This "flow chart" approach is the most comprehensive graphics programming tutorial that I have seen. It touches on all aspects of sprite control and

character definition. [Users can use the "flow chart" to increase or decrease the difficulty of the game - Ed.]

In addition, there is a short section with some documented CALL PEEKs and CALL LOADs, some of which appeared in The Smart Programmer and others of which are completely new.

The appendices contain the complete listing of all five programs as well as the character diagrams and hexadecimal codes for each.

The documentation presents a unique and complete approach to a programming tutorial as well as the first-class explanation of a top-flight arcade game.

Value: The Night Mission package is one of the best deals around. Either the game itself or the manual, marketed separately, would be well worth the retail price of \$19.95. The game is of true arcade quality and is comparable in value to the very best on the arcade game market today. That, combined with the extensive and thorough documentation, makes Night Mission the latest outstanding contribution from the already impressive list of Millers Graphics introductions.

HIGH SCORE MICROPENDIUM - Oct 86 - Vol 3, No 9 - Ray Kazmer
The following comes from Kazco International, P.O. Box 44023, Sylmar, CA 91342:

Those of us smart enough to be owners of Miller Graphics Night Mission already know it is educational, as well as entertaining. Its documentation alone is well worth the price. With this in mind, Kazco International in no way presumes our change is an improvement, but rather an addition. Even so, once you've keyed in this high score feature, we think you'll agree that it looks, sounds and acts as if it belongs there.

You must first change three existing lines in the game programs called NMJOY and NMKEY but make no changes to LOAD. Here are the lines, including changes:

```
10 CALL MAGNIFY(3):: CALL SC 000003"&E$&"5540E0F8E4E2E1F1
REEN(2):: GOTO 30 :: CALL KE FF7C45FE")
V :: CALL JOYST :: CALL SOUN 260 IF Z THEN B=B+2*10000 ::
D :: CALL PEEK :: CALL HCHAR GOTO 740 ELSE CALL CHAR(108
:: CALL VCHAR :: HS :: MAX ,"FF81BFA0AFB981FFFF81E71818
220 CALL COLOR(10,1,1):: DIS E781FFE7B5B5B0BDADADE7E7A5A5
PLAY AT(7,16):"" :: CALL CHA BDASASASE7")
R(108,E$&"55000061E1FFFFFF00
```

Next, you must add three entirely new lines to NMJOY and NMKEY:

```
272 DISPLAY AT(7,7):"o m l o :: DISPLAY AT(7,7):"" :: DIS
" :: HS=MAX(HS,SC):: IF SC<H PLAY AT(7,7):"o m l o "&STR
S THEN 278 ELSE CALL COLOR(1 $(HS):: CALL SOUND(-1,4E4,30
0,6,1):: DISPLAY AT(7,16):HS ):: NEXT X
274 FOR X=0 TO 27 STEP 3 :: 278 CALL COLOR(10,6,1):: DIS
CALL SOUND(-155,550,X,557,X) PLAY AT(7,16):HS
```

That's all there is to it. Remember to SAVE your altered program to a new disk (include LOAD) rather than to your original game disk. Kazco welcomes any comments on this change. Mail comments to the above address.

Howard Uman, of Randallstown, Maryland, writes:

I got inspired by the (Night Mission) High Score feature addition in the October 1986 User Notes by Kazco International. I figured if they could add a high score feature, I'll make it save it to disk to have an ongoing high score. Uman's modifications are in two parts. The first is a single program line that sets up the high score file. It should be executed separately. Simply enter the line and RUN it. Here it is:

```
100 OPEN #1:"DSK1.HIGHSCORE"
:: PRINT #1:0 :: CLOSE #1
```

The second part consists of two lines to be added to the Night Mission NMJOY program and one line to be modified. Here are the additional lines:

```
1 OPEN #1:"DSK1.HIGHSCORE",I
NPUT :: INPUT #1:HSC$::CLOSE
#1 :: HS=VAL(HSC$)
291 OPEN #1:"DSK1.HIGHSCORE"
:: PRINT #1:STR$(HS):: CLOS
E #1 :: END
```

Here is the line to be modified:

```
290 IF T=89 OR V1 THEN 220 E
LSE IF T=78 THEN CALL DELSPR
ITE(ALL):: CALL VCHAR(1,1,32
,768)ELSE 280
```

Save this modified NMJOY file and load it using the Night Mission load program.

The program will now read the high score at the beginning of play and saves the updated version only after play is completed.





Yesterday's News Information



Yesterday's News is a labor of love offered as a source of pleasure & information for users of the TI-99/4A and Myarc 9640 computers.

I do not have an attitude problem. You have a perception problem.

TI-99/4A HARDWARE

TI99/4A COMPUTER
MODIFIED PEB
WHT SCSI AND SCSI2SD
MYARC DSDD FDC
MYARC 512K MEMORY
HORIZON 1.5 MEG HRD
TI RS232
CORCOMP TRIPLE TECH
1 360K 5.25 DRIVE
1 360K 3.50 DRIVE
1 720K 5.25 DRIVE
1 720K 3.50 DRIVE

TI-99/4A SOFTWARE

PAGEPRO 99
PAGEPRO COMPOSER
PAGEPRO FX
PAGEPRO HEADLINER
PAGEPRO GOFER
PAGEPRO FLIPPER
PAGEPRO ROTATION
PIXPRO
PICASSO PUBLISHER
BIG TYPE
TI ARTIST PLUS
GIF MANIA

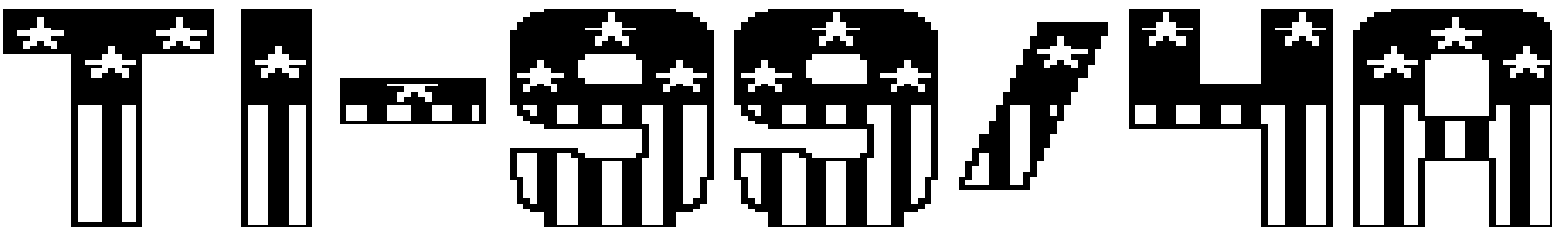
PC HARDWARE

COMPAG ARMADA 2800
COMPAG ARMADASTATION
SAMSUNG SYNCMASTER

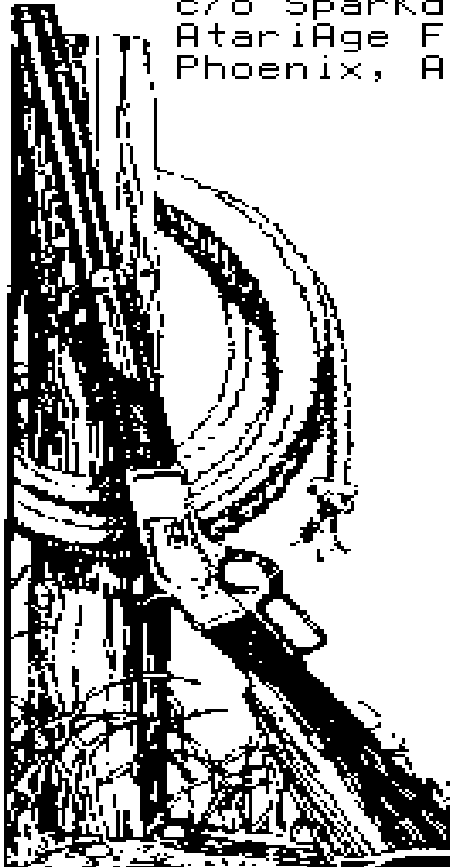
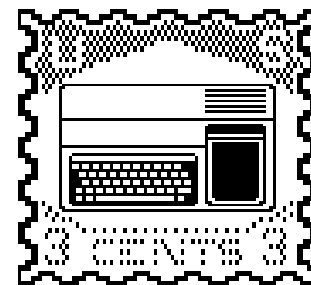
PC SOFTWARE

DEAD WINDOWS 98SE
FILECAP
PRN2PBNS
IRFANVIEW
ADOBE DISTILLER
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Yesterday's News is composed entirely using a TI-99/4A computer system. It consists of 13 PagePro pages which are "printed" via RS232 to PC to be published as a PDF file.



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TI-99/4A Computer User
1234 What Me Worry Lane
Any City, Any State
Any Country

COMING NEXT MONTH

LANGUAGES DISKWASHER
DISKASSEMBLER DRAW'N PLOT
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AMIGA