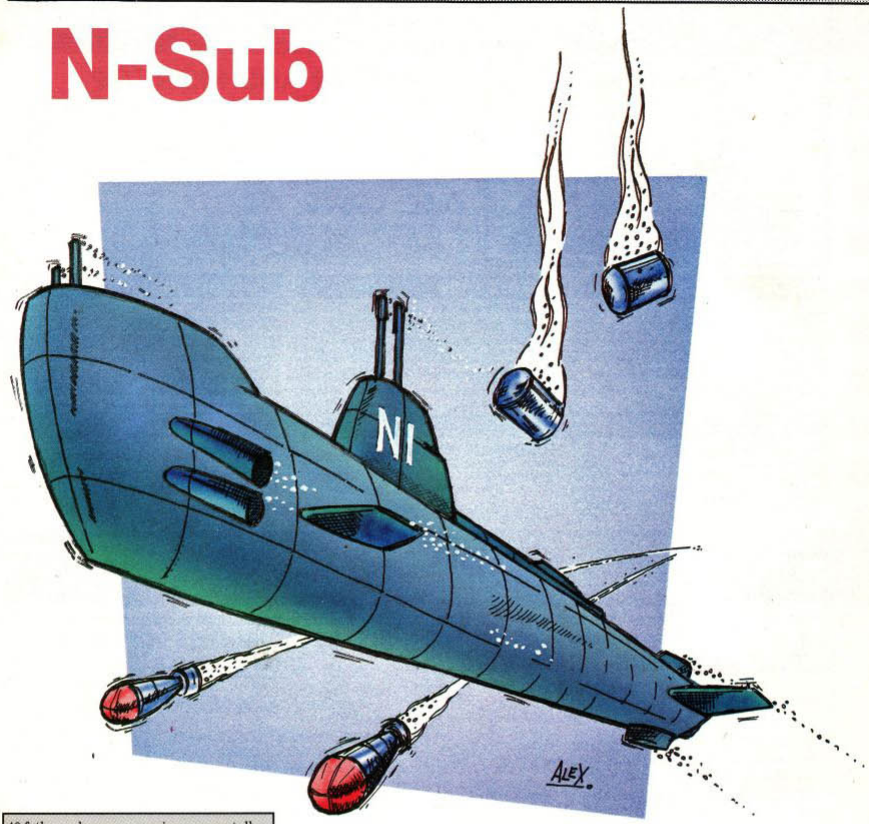
N-Sub



40 fathoms down, a menacing enemy stalks. Davy Jones' locker, or the Victoria Cross? The choice is yours. Type in this listing and voyage to the bottom of the sea

The program is menu-driven and has the following features; one or two player games, player list, top twenty hall of fame, Naval ranking system with automatic promotion and relegation, demonstration mode, sound effects and comprehensive instructions.

Left to itself the computer follows a set pattern of menu options:-pressing any key returns to the main menu.

Details of the game are given in the instructions, but basically, you are in control of a nuclear submarine with which you must attempt to destroy as many of the enemy fleet as possible, whilst avoiding hazards such as depth-charges, enemy subs, homing-bombs etc.

There are two screen types; the 'fleet' and the 'destroyers', but each wave of the destroyers brings a new hazard. (SEE BELOW)

1-99 Define graphics characters & set up variables
500-520 Menu control
550-564 Initialise game for 1 or 2 players
570-573 Automatic menu selection
650-668 Add new player to list
700-710 List players & their ranks
750-760 Initialise demonstration
850-855 Print list of rankings
900-925 Print score values
950-955 Initialise game inks
1000-1040 draw screen
1050-1210 Initialise new game variables
1500-1740 Main game loop
1800-1860 Move mtb & drop depth charges
2000-2045 Test joystick input and move sub/fire
2200-2207 Initialise upward missile
2300-2310 Initialise horizontal missile
2900-2960 Move fleet
3065-3070 Drop depth charges
3500-3810 Move destroyers
4000-4070 Move upward missile when below water-line

SCREEN NUMBER	SHIP TYPE	SCORE VALUE	NO.OF ENEMY SHIPS	SCORE VALUE	SUB FIRING	MTB	H-BOMB	S-BOMB	D-CHARGE EXPLOSION	OTHER EXPLOSIONS
1	FLEET	50,100,150	1	100	DO NOT FIRE	✱			SMALL	SMALL
2	DESTROYER	100	1	100	DO NOT FIRE				SMALL	SMALL
3	FLEET	50,100,150	2	150	UP TO 8 PIXELS VERTICALLY	✱			SMALL	SMALL
4	DESTROYER	150	2	150	UP TO 8 PIXELS				SMALL	SMALL
5	FLEET	100,150,200	3	200	UP TO 16 PIXELS	✱	✱		SMALL	SMALL
6	DESTROYER	200	3	200	16 PIXELS				SMALL	SMALL
7	FLEET	100,150,200	4	250	24 PIXELS	✱	✱	✱	SMALL	SMALL
8	DESTROYER	250	4	250	24 PIXELS				SMALL	SMALL
9	FLEET	100,200,250	5	300	32 PIXELS	✱	✱	✱	LARGE	SMALL
10	DESTROYER	300	5	300	32 PIXELS				LARGE	SMALL
11	FLEET	100,200,250	6	350	40 PIXELS	✱	✱	✱	LARGE	LARGE
12	DESTROYER	350	6	350	40 PIXELS				LARGE	LARGE

4100-4142 Test upward missile hit (below water-line)
4200-4280 Upward missile hit ship
4300 MTB dnd
4400-4430 MTB destroyed
4500-4550 Move upward missile (above water line)
4600-4622 Test horizontal missile hit
5000-5030 Move depth charges
6000-6020 Print score etc
6500-6510 Initialise enemy subs
6600 Initialise homing bomb
6650 Initialise straight bomb
6700-6750 Move homing bomb
6800-6810 Move straight bomb
7000-7050 Move enemy subs
7060-7072 Fire lasers (enemy subs)
7900-7910 enemy sub removal

9000-9005 Break in. note: esc can be used as pause button if pressed once; any key resumes.
9500-9510 Error found
9600-9610 Print "n-sub"
9700-9710 Print ranking list
10000-10040 Small depth charge explosion
10100-10125 Large depth charge explosion
10500-10510 Rub out explosions
11000-11030 Your sub blown up
12000 Game over
12010-12025 Add score(s) to hall of fame

12500-12555 Print high score table
12600-12640 Promotion & relegation
13000-13035 Fleet screen cleared
13165-13170 Initialise ship positions
14000-14010 Destroyer screen cleared
15000- Instructions

CONTROLS

N-sub was designed for joystick control, but it can be played using keyboard if the following alterations are made:

EDIT 1500, 1500 IF INKEY $<> "" AND Z1<50 THEN GOSUB 2050 ELSE...

NEW LINE, 2033 IF INKEY (47) = 0 THEN 2300

NEW LINE, 2034 IF INKEY (18) = 0 THEN 2200

In which case the controls become:-

Q	W	E	FIRE	SPACE
A		D	FIRE	ENTER (LARGE)
Z	X	C		

but a and w will produce diagonal motion etc. (large)

Listing 1

```
10 BORDER 20:INK 0,20:INK 2,20:INK 1,6:I
   NK 3,15
20 MODE 1:LOCATE 1,1:PEN 2:PRINT"N-SUB":
   PEN 1
30 FOR F=400 TO 384 STEP-2
40 FOR G=0 TO 80 STEP 2
50 C=TEST(G,F)
60 IF C THEN LOCATE 1+G/2,(402-F)/2:PRIN
   T CHR$(143)
70 NEXT G,F
80 PEN 2:LOCATE 1,1:PRINT "IS LOADING"
90 PEN 3
100 FOR F=400 TO 384 STEP-2
110 FOR G=0 TO 160 STEP 2
120 C=TEST(G,F)
130 IF C=0 THEN 150
140 PLOT 160+G*2,192-2*(400-F),3:PLOT 16
    0+G*2,190-2*(400-F):PLOT 160+G*2+2,1
    92-2*(400-F):PLOT 160+G*2+2,190-2*(4
    00-F)
150 NEXT G,F:LOCATE 1,1:PEN 0:PRINT"
       ":INK 2,0
160 LOCATE 11,11:PEN 2:PRINT CHR$(164);"
    1984  STEPHEN GRAY"
170 PEN 1:LOCATE 1,18:RUN "sub"
```

Listing 2

```
1 DIM L(5,2),SS(4,2),RK(20),RK$(20),HC(2
  0),HC$(20)
2 EE(0)=65:EE(1)=-100:DEG:RANDOMIZE TIM
  E
```

```
3 ENV 1,1,0,20,15,-1,3:ENV 2,1,0,20,10,-
  1,4:ENV 3,5,1,2,1,-6,1,1,0,4
4 ENT 1,12,-2,1:ENT 2,18,-10,2,10,0,15:E
  NT 4,20,5,1
5 ON ERROR GOTO 9500
6 ON BREAK GOSUB 9000
10 SYMBOL AFTER 128
20 SYMBOL 129,1,1,127,213,255,255,255,12
   7
30 SYMBOL 130,224,224,255,255,255,254,24
   8,224
40 SYMBOL 131,1,3,255,255,131,1,0,0
41 SYMBOL 132,128,192,255,255,193,128,0,
   0
42 SYMBOL 133,7,7,255,255,255,127,31,7
43 SYMBOL 134,128,128,254,171,255,255,25
   5,254
44 SYMBOL 135,7,7,127,215,255,255,255,12
   4
45 SYMBOL 136,1,3,255,255,243,193,0,0
46 SYMBOL 137,128,192,255,255,207,131,0,
   0
```

```
47 SYMBOL 138,224,224,254,235,255,255,25
   5,62
49 SYMBOL 140,18,82,116,24,208,48,16,16
50 SYMBOL 141,195,231,126,36,126,255,189
   ,189
51 SYMBOL 142,177,253,241,253,241,255,12
   6,60
52 SYMBOL 143,141,191,143,191,143,255,12
   6,60
53 SYMBOL 144,0,0,0,0,48,24,24,12
54 SYMBOL 145,0,0,0,0,12,24,24,48
```

```
55 SYMBOL 146,24,24,24,24,60,60,36,36
56 SYMBOL 147,0,0,224,124,124,224,0,0
57 SYMBOL 148,0,0,7,62,62,7,0,0
60 SYMBOL 151,255,46,194,224,0,128,192,2
   24
61 SYMBOL 152,59,22,6,0,0,0,0,0
62 SYMBOL 153,127,95,63,31,15,31,63,127
63 SYMBOL 154,255,255,255,239,39,39,135,3,1
   35
64 SYMBOL 155,231,231,231,231,195,195,21
   9,219
65 SYMBOL 156,255,255,255,255,255,255,25
   5,255
66 SYMBOL 157,33,153,77,39,31,31,127,63
67 SYMBOL 158,32,35,100,216,240,240,255,
   252
68 SYMBOL 159,31,127,143,31,55,101,69,13
   6
69 SYMBOL 160,248,240,252,230,33,176,152
   ,136
```

```
70 SYMBOL 161,36,84,85,215,223,239,255,2
   55
71 SYMBOL 162,255,255,255,223,215,85,84,
   36
72 SYMBOL 163,0,48,50,254,254,250,112,0
73 SYMBOL 164,0,0,32,22,255,63,15,3
74 SYMBOL 165,0,0,8,60,124,255,255,254
75 SYMBOL 166,0,0,16,60,62,255,255,127
76 SYMBOL 167,0,0,4,104,255,252,240,192
77 SYMBOL 168,247,231,247,183,198,229,99
   ,35
78 SYMBOL 169,128,195,0,0,129,129,195,19
   5
80 DATA 0,200,400,700,1200,1600,2000,300
   0,4000,5000,7000,10000,12500,15000,17
   500,20000,25000,30000,40000,50000
```

```
81 DATA "LANDLUBBER","ORDINARY SEAMAN","
   ABLE SEAMAN","LEADING SEAMAN","PETTY
   OFFICER","CHIEF PETTY OFFICER","WARRA
   NT OFFICER","MIDSHIPMAN","ENSIGN (GRA
   DE II)"
82 DATA "ENSIGN (GRADE I)","LIEUTENANT (
   2ND CLASS)","LIEUTENANT (1ST CLASS)"
83 DATA "LIEUTENANT COMMANDER","CAPTAIN"
   ,"COMMODORE","REAR ADMIRAL (LOWER)"
84 DATA "REAR ADMIRAL (UPPER)","VICE-ADM
   IRAL","ADMIRAL","FLEET ADMIRAL"
85 FOR F=1 TO 20:READ RK(F):NEXT F:FOR F
   =1 TO 20:READ RK$(F):NEXT F
90 DATA "1. <1> PLAYER GAME"
91 DATA "2. <2> PLAYER GAME"
92 DATA "3. ADD NEW PLAYER"
93 DATA "4. VIEW PLAYERS"
94 DATA "5. HIGH SCORE TABLE"
95 DATA "6. DEMONSTRATION"
96 DATA "7. RANKINGS"
97 DATA "8. SCORE VALUES","9. INSTRUCTIO
   NS"
```

```
98 HC$="00000":C=1
99 C(1)=14:C(2)=17:C(3)=18:C(4)=20:C(5)=
   23:C(6)=5
500 Z1=0:SPEED KEY 20,3:Z=40:BORDER 0:BL
   S=CHR$(156):MODE 0:INK 0,0:INK 1,INT
   (RND*16)+10:PAPER 0:PEN 1:GOSUB 9600
501 PL=1:NS(1)=3:NS(2)=3:SC(1)=0:SC(2)=0
   :SR(1)=1:SR(2)=1:DD=0
502 INK 2,INT(RND*16)+10:PEN 2:RESTORE 9
   0:FOR F=1 TO 9:LOCATE 1,6+F*2:READ F
   $:PRINT F$:NEXT F
503 SC$(1)="00000":SC$(2)="00000"
504 L(0,1)=1:L(1,1)=0.15:L(2,1)=3:L(3,1)
   =0.986:L(4,1)=0.95:L(5,1)=0:HF=L(2,P
   L)
505 L(0,2)=1:L(1,2)=0.15:L(2,2)=3:L(3,2)
   =0.986:L(4,2)=0.95:L(5,2)=0
506 SS(1,2)=100:SS(2,2)=0:SS(3,2)=100:SS
   (4,2)=150
507 SS(1,1)=100:SS(2,1)=0:SS(3,1)=100:SS
   (4,1)=150
508 L(0,1)=1:L(0,2)=1
510 FOR F=1 TO 3000:V=VAL(INKEY$):IF V=0
   OR V>9 THEN NEXT F:GOTO 570
515 ON V GOSUB 550,550,650,700,12500,750
   ,850,900,15000
517 IF V<3 AND TP THEN 940
520 GOTO 500
```

```
550 IF TP=0 THEN RETURN
555 GOSUB 700:PEN 2:LOCATE 1,23:INPUT "W
   HO'S PLAYER <1>";N:IF N=0 OR N>TP TH
   EN 555
560 P1(1)=N:RN(1)=PR(N):N$(1)=NP$(N):AV(
   1)=PV(N):IF V=1 THEN NP=1:NS(2)=0:RE
   TURN
562 PEN 1:LOCATE 1,24:INPUT "AND WHO'S P
   LAYER <2>";N:IF N=0 OR N>TP THEN 562
564 P1(2)=N:RN(2)=PR(N):N$(2)=NP$(N):AV(
   2)=PV(N):NP=2:RETURN
570 GOSUB 900:IF I$<>"" THEN 500
571 GOSUB 700:IF I$<>"" THEN 500
572 GOSUB 750:IF I$<>"" THEN 500
573 Z=40:GOTO 12500
650 INK 3,6:MODE 1:INK 1,10+INT(RND*16):
   INK 2,10+INT(RND*16):GOSUB 9700:TP=T
   P+1
660 LOCATE 1,23:PEN 1:PRINT"PLAYER";TP;"
   ENTER YOUR NAME";:PEN 3:INPUT N$:NP$
   (TP)=RIGHT$(N$,7)
665 LOCATE 1,24:PEN 1:PRINT"AND YOUR RAN
   K (1-20) ";:PEN 3:INPUT PR(TP):IF PR
   (TP)>20 OR PR(TP)=0 THEN 665
```

```
667 PV(TP)=11*RK(PR(TP))/10:GOSUB 700
668 RETURN
700 IF TP=0 THEN RETURN
701 MODE 1:TAGOFF:FOR F=1 TO TP:PEN 1:LO
   CATE 1,1+F
702 PRINT F:PEN 2:LOCATE 6,1+F:PRINT NP$
   (F):LOCATE 17,1+F:PEN 3:PRINT RK$(PR
   (F)):NEXT F
703 IF V=1 OR V=2 THEN RETURN
705 FOR F=1 TO 3000:I$=INKEY$:IF I$="" T
   HEN NEXT F
710 RETURN
```

```
750 Z1=50:GOSUB 950:GOSUB 1500
760 RETURN
850 MODE 1:GOSUB 9700:FOR F=1 TO 7000:IF
   INKEY$="" THEN NEXT F
855 RETURN
900 GOSUB 1100:INK 0,0:INK 1,INT(RND*16)
   +10:INK 2,23:INK 3,6:INK 4,18:INK 5,
   26
902 PAPER 0:BORDER 0:MODE 0:PEN 1:PAPER
   0:GOSUB 9600
904 PEN 2:FOR F=1 TO 10:LOCATE 5,7+F:PRI
   NT STRING$(5,BL$):NEXT F
906 LOCATE 6,9:PRINT SH$(1):LOCATE 13,9:
   PEN 5:PRINT "150"
908 PEN 2:LOCATE 6,11:PRINT SH$(2):LOCAT
   E 13,11:PEN 5:PRINT "100"
910 PEN 2:LOCATE 6,13:PRINT SH$(3):LOCAT
   E 13,13:PEN 5:PRINT " 50"
912 PEN 2:LOCATE 6,15:PRINT DD$:LOCATE 6
   ,16:PRINT DE$:LOCATE 13,15:PEN 5:PRI
   NT"100"
914 LOCATE 6,19:PEN 3:PRINT ES$(0):LOCAT
   E 13,19:PEN 5:PRINT"100"
916 LOCATE 6,21:PEN 4:PRINT MB$(1):LOCAT
   E 10,21:PEN 3:PRINT"MYSTERY"
918 LOCATE 6,23:PEN 4:PRINT HB$:LOCATE 6
   ,24:PRINT HL$(0):LOCATE 10,23:PEN 3:
   PRINT"MYSTERY"
920 FOR F=1 TO 3000:I$=INKEY$:IF I$="" T
   HEN NEXT F
925 RETURN
```

```
940 Z=0:GOSUB 950:GOTO 1500
950 DATA 0,20,6,9,4,18,15,26,24,25,23,11
   ,14,17,15,19
955 RESTORE 950:FOR f=0 TO 15:READ A:INK
   F,A:NEXT F
1000 MODE 0:PAPER 0:CLG 0:BORDER 13:TAGO
   FF
1003 NS$=CHR$(163)+CHR$(163)+CHR$(163)+C
   HR$(163)
1005 PAPER 10:PRINT SPACE$(60);
1010 PAPER 11:PRINT SPACE$(160)
1013 IF NP=2 THEN PL=3-PL:GOSUB 6000:GOS
   UB 6020:PL=3-PL:GOSUB 6000:GOSUB 60
   20 ELSE GOSUB 6000:GOSUB 6020
1015 FOR X=0 TO 640 STEP 8:PLOT X,222,11
   :NEXT X
1025 PLOT 0,0,3:FOR F=1 TO 15:X=RND*620+
   10:Y=RND*8
1026 FOR G=1 TO Y:MOVE X,7+G:TAG:PRINT C
   HR$(140);:NEXT G,F
1030 FOR X=0 TO 640 STEP 4:Y=RND*4:MOVE
   X,0:DRAW X,Y,8:NEXT X
1033 IF Z1=50 THEN PEN 8:PAPER 0:TAGOFF:
   LOCATE 4,18:PRINT"DEMONSTRATION":GO
   TO 1040
1035 PEN 8:PAPER 0:TAGOFF:LOCATE 3,18:PR
   INT "PLAY PLAYER  ";PL:LOCATE 16,18
   :PRINT"<":LOCATE 18,18:PRINT ">"
1040 FOR F=1 TO 640 STEP 2:PLOT F,228+RN
   D*120,INT(6*RND+10):NEXT F
1050 FF=0:SO=0:MB=0:HB=0:SB=0:EN=0:NS=12
```

```
1100 SU$(0)=CHR$(129)+CHR$(130)+CHR$(131
     ):SU$(1)=CHR$(132)+CHR$(133)+CHR$(1
     34)
1101 SB$=CHR$(252)
1102 MB$(0)=CHR$(164)+CHR$(165):MB$(1)=C
     HR$(166)+CHR$(167)
1110 ES$(0)=CHR$(135)+CHR$(136):ES$(2)=C
     HR$(137)+CHR$(138)
1125 HB$=CHR$(141):HL$(0)=CHR$(143):HL$(
     2)=CHR$(142)
1135 DC$(1)=CHR$(144):DC$(0)=CHR$(145)
1138 E9$=CHR$(159)+CHR$(162)+CHR$(160)
1140 MU$=CHR$(146):MI$(0)=CHR$(148):MI$(
     1)=CHR$(147)
1142 M1$=CHR$(155)
1150 SH$(3)=CHR$(151)+CHR$(152)+CHR$(153
     ):SH$(2)=CHR$(151)+CHR$(153):SH$(1)
     =CHR$(154)
1151 BL$(3)=BL$+BL$+BL$:BL$(2)=BL$+BL$:B
     L$(1)=BL$(2)
1158 EX$(1)=CHR$(161):EX$(2)=CHR$(157)+C
     HR$(158):EX$(3)=CHR$(157)+CHR$(161)
     +CHR$(158)
1159 BI$=CHR$(161)+CHR$(161)+CHR$(161):B
     3$=CHR$(159)+CHR$(162)+CHR$(160)
1160 DD$=CHR$(168)+BL$:DE$=CHR$(169)+BL$
1165 GOSUB 13165
1170 E1$=CHR$(157)+CHR$(158):E2$=CHR$(15
     9)+CHR$(160)
1195 LOCATE 3,18:PRINT "
     ":TAG
1200 SX=280:SY=92:PLOT SX,SY,1:TAG:PRINT
     SU$(LR);
1210 SPEED KEY 2,3:RETURN
1500 IF JOY(0) THEN GOSUB 2000 ELSE IF Z
     1>49 THEN J$=BIN$(INT(32*RND),5):IF
     INKEY$="" AND Z1=50 THEN GOSUB 200
     5 ELSE IF Z1<70 THEN Z1=0:RETURN EL
     SE 12000
```

```
1510 GOSUB 2900
1520 IF FF THEN GOSUB 4000
1530 IF ND THEN GOSUB 5000
1535 IF HB THEN GOSUB 6700
1537 IF SB THEN GOSUB 6800
1540 IF RND>L(3,PL) AND EN=0 THEN GOSUB
     6500
1545 IF RND>L(3,PL)+0.009 AND MB=0 AND D
     D=0 THEN MD=2*(INT(RND*2)-0.5):MX=1
     0-9*MD:MY=9:MB=1:TAGOFF:GOSUB 1850
1550 IF EN THEN GOSUB 7000
1555 IF FF THEN GOSUB 4000
1560 IF SR(PL)>4 AND DD=0 AND RND>L(3,PL
     ) AND HB=0 THEN GOSUB 6600 ELSE IF
     RND>L(3,PL) AND SR(PL)>6 AND DD=0 A
     ND SB=0 THEN GOSUB 6650
1570 IF MB THEN GOSUB 2800
1690 INK INT(4*RND+12),C(1+INT(6*RND))
1700 IF EN OR MB OR HB THEN 1500
1730 X=RND*640:Y=228+RND*120:IF TEST(X,Y
     ) THEN PLOT X,Y,INT(6*RND+10)
1740 GOTO 1500
1800 C=C*2+7*(C=4):SOUND C,220,50,10,0,2
     :TAGOFF:LOCATE MX,MY:PAPER 11:PRINT
     " ";MX=MX+MD:IF MX>19 OR MX<1 THE
     N MB=0:TAG:RETURN
1850 PRINT CHR$(22)+CHR$(1):LOCATE MX,MY
     :PEN 5:PRINT MB$(MD/2+0.5):PRINT CH
     R$(22)+CHR$(0):TAG:IF RND>0.2 OR ND
     >9 THEN RETURN
1860 ND=ND+1:DX(ND)=MX/20*640-RND*32:DY(
     ND)=220:GOTO 3067
2000 J$=BIN$(JOY(0),5)
2005 IF MID$(J$,2,1)="1" AND SX<540 THEN
     XA=12:LR=1:GOTO 2010 ELSE XA=0
2007 IF MID$(J$,3,1)="1" AND SX>12 THEN
     XA=-12:LR=0 ELSE XA=0
```

```
2010 IF RIGHT$(J$,1)="1" AND SY<214 THEN
     YA=6:GOTO 2030 ELSE YA=0
2015 IF MID$(J$,4,1)="1" AND SY>22 THEN
     YA=-6 ELSE YA=0
2030 PLOT SX,SY,0:PRINT "   ";:SX=SX+XA:
     SY=SY+YA:PLOT SX+44,SY-6,1:MOVE SX,
     SY:PRINT SU$(LR);
2035 IF JOY(0)=16 OR (JOY(0)>15 AND RIGH
     T$(J$,1)="1") THEN 2200
2040 IF LEFT$(J$,1)="1" THEN 2300
2045 RETURN
2050 IF Z1<50 THEN 2055 ELSE IF Z1<70 TH
     EN Z1=0:RETURN ELSE 12000
2055 IF (INKEY(58)+INKEY(61)+INKEY(62))>
     -3 AND SX<540 THEN XA=12:LR=1:GOTO
     2060 ELSE XA=0
2057 IF (INKEY(67)+INKEY(69)+INKEY(71))
     >-3 AND SX>12 THEN XA=-12:LR=0 ELSE
     XA=0
2060 IF (INKEY(67)+INKEY(59)+INKEY(58))>
     -3 AND SY<214 THEN YA=6:GOTO 2030 E
     LSE YA=0
```

```
2065 IF (INKEY(71)+INKEY(63)+INKEY(62))
     >-3 AND SY>22 THEN YA=-6 ELSE YA=0
2070 GOTO 2030
2200 IF FF=1 THEN RETURN
2201 C=C*2+7*(C=4):SOUND C,30,10,6,0,1,1
2205 FF=1:BX=SX+22+LR*24:BY=SY+16:IF BY<
     216 THEN BS=0:PLOT BX+16,BY,7:MOVE
     BX,BY:PRINT MU$;:RETURN
2207 BS=1:BY=240:GOTO 4550
2300 IF FF=1 THEN RETURN
2301 C=C*2+7*(C=4):SOUND C,25,10,6,0,1,1
2305 FF=1:BX=SX-32+128*LR:BY=SY:BS=-2+LR
     :IF TEST(BX-16+192*LR,BY-8)<>0 THEN
     4600
2310 PLOT -2,0,7:MOVE BX,BY:PRINT MI$(BS
     +2);:RETURN
2900 IF DD THEN 3500
2902 SM=SM+1+3*(SM=3)
2903 IF XC(SM)<-400 THEN 13000
2905 XC(SM)=XC(SM)-HF:CL=11+(SM=1)
2910 PLOT XC(SM),YC(SM),CL:PRINT SL$(SM)
     ;
2960 IF RND>L(1,PL) OR ND>3 THEN RETURN
3065 ND=ND+1:DX(ND)=XC(1)+FS*96+(630-(XC
     (1)+FS*96))*RND:DY(ND)=220:IF DX(ND
     )>630 THEN ND=ND-1:RETURN
3067 IF DX(ND)-SX<96 AND ABS(DY(ND)-SY)<
     16 AND DX(ND)-SX>-32 THEN 10000
```

```
3070 PLOT DX(ND)+16,DY(ND)-8,6:MOVE DX(N
     D),DY(ND):WD(ND)=INT(2*RND):PRINT D
     C$(WD(ND));:RETURN
3500 SM=SM+1:IF SM>NS THEN SM=1
3510 ON GE(SM) GOTO 3600,3700,3800
3600 IF PX(SM)<320 THEN GE(SM)=2:AG(SM)=
     98:GOTO 3710
3610 PX(SM)=PX(SM)-16:PLOT PX(SM),PY(SM)
     ,11:PRINT DD$;:PLOT PX(SM),PY(SM)-1
     6:PRINT DE$;
3620 IF RND>L(1,PL) OR ND>3 THEN RETURN
3630 ND=ND+1:DX(ND)=PX(SM)-16+32*RND:DY(
     ND)=220:IF DX(ND)>630 THEN ND=ND-1:
     RETURN
3640 GOTO 3067
3700 IF AG(SM)>=810 THEN GE(SM)=3:GOTO 3
     810
3710 PLOT PX(SM),PY(SM),11:PRINT BL$;:PL
     OT PX(SM),PY(SM)-16:PRINT BL$;
3720 AG(SM)=AG(SM)+8:PX(SM)=320+96*COS(A
     G(SM)):PY(SM)=304+46*SIN(AG(SM)):PL
     OT PX(SM),PY(SM):PRINT DD$;:PLOT PX
     (SM),PY(SM)-16:PRINT DE$;:GOTO 3065
3800 IF PX(SM)<-32 THEN F=SM:GOTO 4280
3810 GOTO 3610
```

```
4000 IF BS=1 THEN 4500
4005 IF BS<0 THEN 4050
4010 PLOT BX,BY,0:PRINT " ";:BY=BY+16:IF
     BY>210 THEN BS=1:BY=240:GOTO 4550
4020 IF TEST(BX+16,BY+2)>0 OR TEST(BX+16
     ,BY+10)>0 THEN 4100
4030 PLOT BX+16,BY,7:MOVE BX,BY:PRINT MU
     $;:RETURN
4050 PLOT BX,BY,0:PRINT " ";:BX=BX+64*(B
     S+1.5):IF BX>640 OR BX<-32 THEN FF=
     0:RETURN
4060 IF TEST(BX-32+64*(BS+2),BY-8)>0 OR
     TEST(BX-48+96*(BS+2),BY-8)>0 THEN 4
     600
4070 PLOT -2,0,7:MOVE BX,BY:PRINT MI$(BS
     +2);:RETURN
4100 T=TEST(BX+16,BY+2):IF T=0 THEN T=TE
     ST(BX+16,BY+10)
4101 IF T=2 THEN C=C*2+7*(C=4):SOUND C,0
     ,60,15,1,0,9:GOTO 4120
4102 IF T=6 THEN C=C*2+7*(C=4):SOUND C,4
     00,5,15,0,0,1:GOTO 4140
4105 C=C*2+7*(C=4):SOUND C,0,60,15,1,0,9
     :X=1+2*(HX-32)/64:Y=2+25*(1-(HY-3
     2*(HY<64))/400):Z=0:XE=HX:YE=HY:HB=
     0:GOSUB 10510:GOSUB 4400:RETURN
4120 FOR F=1 TO EN: IF BX-NX(F)<96 AND B
     X>NX(F)-20 AND ABS(NY(F)-BY)<26 THE
     N 4122
4121 NEXT F:LN=4121:GOTO 9000
4122 X=NX(F):Y=NY(F):PLOT -2,0,9:MOVE X,
     Y:PRINT ES(2);:SC(PL)=SC(PL)+SS(3,
     PL):GOSUB 6000:SW=F:GOSUB 7900
4123 FF=0:PLOT X,Y,0:PRINT "  ";:RETURN
4140 FOR F=1 TO ND:IF ABS(BX-DX(F))<17 A
     ND ABS(BY(F)-BY)<32 THEN 4142
4141 NEXT F:LN=4141:GOTO 9000
```

```
4142 PLOT DX(F),DY(F):PRINT " ";:DX(F)=D
     X(ND):DY(F)=DY(ND):ND=ND-1:FF=0:RET
     URN
4200 HF=HF+0.4:SOUND 1,0,60,15,1,0,9:IF
     DD THEN 4250
4201 IF BY<272 THEN 4300
4202 IF BY<304 THEN SH=3:GOTO 4220
4205 IF BY<336 THEN SH=2:GOTO 4220
4210 SH=1
4220 FOR F=0 TO 3:IF BX>XC(SH)+76+F*96 T
     HEN NEXT F:GOTO 9000
4225 XE=XC(SH)+F*96:YE=YC(SH):IF NS=1 TH
     EN X=20*XE/640:Y=1+25*(1-YE/400):Z=
     11+(SH=1):GOSUB 4400:GOTO 13000
4228 PLOT XE,YE,2:PRINT EX$(SH);:A=SIN(1
     4)[COS(20)
4230 IF SH>1 THEN PLOT XE,YE,11 ELSE PLO
     T XE,YE,10:FS=F+1
4232 PRINT BL$(SH);:SC(PL)=SC(PL)+SS(2,P
     L)+50*(4-SH):GOSUB 6000
4240 FF=0:NS=NS-1
4245 SL$(SH)=LEFT$(SL$(SH),F+3)+BL$(3)+R
     IGHT$(SL$(SH),9-F+3):RETURN
4250 FOR F=1 TO NS:IF ABS(BX-PX(F))>40 O
     R ABS(BY-PY(F))>49 THEN NEXT F:LN=4
     250:GOTO 9000
4255 XE=PX(F):YE=PY(F):IF NS=1 THEN X=20
     *XE/640:Y=2+INT(25*(1-YE/400)):Z=11
     +(Y<5):GOSUB 4400:GOTO 14000
4260 PLOT XE,YE,2:PRINT EX$(1);:PLOT XE,
     YE-16:PRINT BL$;
4265 A=SIN(14)[COS(20):SC(PL)=SC(PL)+SS(
     1,PL):PLOT XE,YE,11:PRINT BL$;:PLOT
     XE,YE-16:PRINT BL$;:FF=0:GOSUB 600
     0
4280 PX(F)=PX(NS):PY(F)=PY(NS):GE(F)=GE(
     NS):AG(F)=AG(NS):NS=NS-1:IF NS=0 TH
     EN 14000 ELSE RETURN
```

```
4300 TAGOFF:LOCATE MX,MY:PAPER 11:PRINT
     " ":X=MX:Y=MY:Z=11:GOSUB 4400:MB=0
     :RETURN
4400 HF=HF+0.3:SOUND 2,48,-10,10,3:BN=SS
     (4,PL)+50*INT(RND*9):IF BN>950 THEN
      BN=950
4405 FF=0:IF X>18 THEN X=18
4406 IF X<1 THEN X=1
4410 TAGOFF:B2$=RIGHT$(STR$(BN),3):PRINT
      CHR$(22)+CHR$(1):LOCATE X,Y-1:PEN
     2:PRINT B1$:LOCATE X,Y:PRINT BL$(3)
     :LOCATE X,Y:PEN 0:PRINT B2$:LOCATE
     X,Y+1:PEN 2:PRINT B3$
4415 FOR F=1 TO 70:NEXT F:SC(PL)=SC(PL)+
     BN
4420 LOCATE X,Y-1:PEN Z:PRINT BL$(3):LOC
     ATE X,Y:PEN Z+(Z=10)*(ROUND(Y)>3):P
     RINT BL$(3):LOCATE X,Y+1:PEN Z-(Z=1
     0):PRINT BL$(3):PRINT CHR$(22)+CHR$
     (0)
4425 GOSUB 6000:GOSUB 6020:IF NP>1 THEN
     PL=3-PL:GOSUB 6000:GOSUB 6020:PL=3-
     PL:RETURN
4426 RETURN
4430 TAGOFF:LOCATE X,Y+1:PAPER 11:PRINT
     BL$(3):TAG:RETURN
```

```
4500 PLOT BX,BY,11:PRINT BL$;:BY=BY+16
4510 IF TEST(BX+16,BY+2)<10 OR TEST(BX+1
     6,BY+10)<10 THEN 4200
4515 IF BY>342 THEN FF=0:RETURN
4550 PLOT BX+16,BY,11:MOVE BX,BY:PRINT M
     1$;:RETURN
4600 T=TEST(BX-32+64*(BS+2),BY-8):IF T=0
      THEN T=TEST(BX-48+96*(BS+2),BY-8)
4601 IF T<>2 AND T<>5 THEN RETURN
4602 SOUND 1,0,60,15,1,0,9:IF T=2 THEN 4
     620
4603 GOTO 4105
4620 FOR F=1 TO EN: IF ABS(BX-NX(F))<112
      AND ABS(BY-NY(F))<10 THEN 4122
4622 NEXT F:LN=4621:GOTO 9000
5000 WC=WC+1:IF WC>ND THEN WC=1
5005 IF TEST(DX(WC)+16,DY(WC)-12)<>6 THE
     N DY(WC)=DY(WC)-4:GOTO 10000
5010 WD(WC)=1-WD(WC)
5020 DY(WC)=DY(WC)-6:IF DY(WC)<38 OR RND
     >0.97 OR TEST(DX(WC)+16,DY(WC)-16)>
     0 THEN 10000
5030 PLOT -20,0,6:MOVE DX(WC),DY(WC):PRI
     NT DC$(WD(WC));:RETURN
```

```
6000 IF SC(PL)>=5000 AND EM(PL)=0 THEN N
     S(PL)=NS(PL)+1:EM(PL)=1:FOR A=1 TO
     10:SOUND 1,25,8,7:SOUND 1,25,4,0:NE
     XT A
6002 FS=STR$(SC(PL)):SC$(PL)=LEFT$("0000
     0",6-LEN(FS))+RIGHT$(FS,LEN(FS)-1):
     TAGOFF:LOCATE 1+15*(PL-1),1:PAPER 1
     0:PEN 0:PRINT SC$(PL)
6003 IF SC(PL)>HC AND Z1=0 THEN HC$=SC$(
     PL):HC=SC(PL):GOSUB 6020:TAGOFF
6005 SR$=RIGHT$(STR$(SR(PL)),1):IF NP=2
     THEN LOCATE 5+(PL-1)*15,2:PEN 6:PRI
     NT SR$; ELSE LOCATE 20,1:PEN 6:PRIN
     T SR$;
6010 PEN 2:IF NP=2 THEN LOCATE 1+(PL-1)*
     15,2 ELSE LOCATE 16,1
6011 PRINT LEFT$(NS$,NS(PL)):TAG:RETURN
6020 PEN 0:TAGOFF:LOCATE 9,1:PRINT HC$:T
     AG:RETURN
6500 EN=L(0,PL):FOR F=1 TO EN:A=INT(RND*
     2):NX(F)=EE(A):LR(F)=(A-0.5)*2:NY(F
     )=RND*180+30:UD(F)=2*(INT(RND*2)-0.
     5):SP(F)=4*(1+RND*2):NEXT F
6510 RETURN
```

```
6600 HB=1:HX=XC(1)-96+FS*96+(100+FS*96)*
     RND:HY=220:IF HX>640 THEN 6600 ELSE
      RETURN
6650 SB=1:TX=XC(1)-96+FS*96+(100+(4-FS)*
     96)*RND:TY=220:IF TX>640 THEN 6650
     ELSE RETURN
6700 C=C+2+7*(C=4):SOUND C,INT(RND*500)+
     1000,50:Z=SGN(SX+32-HX):IF INKEY(67
     )<>-1 THEN Z=-1
6703 IF INKEY(58)<>-1 THEN Z=1
6705 PLOT HX,HY,0:PRINT BL$;:PLOT HX,HY-
     16:PRINT BL$;:HX=HX+(SR(PL)+1)*Z:HY
     =HY-8
6710 PLOT HX,HY,5:PRINT HB$;:PLOT HX,HY-
     16:PRINT HL$(Z+1);
6720 IF HY-32>SY THEN RETURN
6730 IF HY-SY>64 THEN 6740
6731 IF HX-SX>96 THEN 6740
```

```
6732 IF SY-HY>32 THEN 6740
6733 IF SX-HX>32 THEN 6740
6734 GOTO 11000
6740 IF HY>48 THEN RETURN
6745 Z=33:SOUND 1,0,60,5,2,0,15:XE=HX:YE
     =HY:GOSUB 10010
6750 GOSUB 10500:HB=0:RETURN
6800 PLOT TX,TY,0:PRINT BL$;:TY=TY-16:PL
     OT TX,TY,3:PRINT SB$;
6805 IF TY<40 THEN PLOT TX,TY,0:PRINT BL
     $;:SB=0:RETURN
6810 IF TEST(TX+16,TY-26)<>1 THEN RETURN
      ELSE 11000
7000 SW=SW+1:IF SW>EN THEN SW=1
7002 IF TEST(NX(SW)+28,NY(SW)-8)<>2 AND
     NX(SW)>-28 AND NX(SW)<610 THEN SOUN
     D 1,0,60,5,2,0,15:Z=33:XE=NX(SW):YE
     =NY(SW)+RND*16:GOSUB 10010:GOSUB 10
     500:GOSUB 7900:RETURN
7005 IF RND>L(4,PL) AND SR(PL)>2 AND NX(
     SW)>0 AND NX(SW)<600 THEN 7060
7010 POLT NX(SW),NY(SW),0:PRINT BL$(3);:
     NX(SW)=NX(SW)+LR(SW)*SP(SW)*(1+0.3*
     EN):NY(SW)=NY(SW)+UD(SW)*SP(SW)*0.3
     5
7015 PLOT NX(SW),NY(SW),2:PRINT  ES$(1+L
     R(SW));:IF LR(SW)+NX(SW)>640 OR NX(
     SW)<-110 THEN GOSUB 7900:RETURN
7020 IF UD(SW)+NY(SW)>210 OR (NY(SW)<35
     AND UD(SW)=-1) THEN UD(SW)=-UD(SW)
7030 IF NX(SW)-SX<96 AND NX(SW)>SX-64 AN
     D NY(SW)-SY<16 AND NY(SW)>SY-16 THE
     N 11000
```

```
7050 RETURN
7060 C=C*2+7*(C=4):SOUND 1,50,15,12,0,4
7063 X2=NX(SW)+30+34*LR(SW):Y2=NY(SW)-8:
     X1=NX(SW)+(500*RND+100)*LR(SW)
7064 Y1=NY(SW)+L(5,PL)*RND-(L(5,PL)*2*RN
     D):IF Y1>200 OR Y1<26 THEN 7064
7065 MOVE X2,Y2:DRAW X1,Y1,13*RND+2
7067 SOUND 1,0,40,5,2,0,15:XE=X1-32:YE=Y
     1+16:Z=33:GOSUB 10010
7068 IF (SY-16>Y1 AND SY-16>Y2) OR (SY<Y
     1 AND SY<Y2) THEN 7071
7070 FOR F=SY-14 TO SY:IF TEST(SX,F)<2 A
     ND TEST (SX+94,F)<2 THEN NEXT F:GOT
     O 7071 ELSE 11000
7071 GOSUB 10500
7072 MOVE X2,Y2:DRAW X1,Y1,0:RETURN
7900 IS=UPPER$(INKEY$):IF EN<2 THEN EN=0
     :RETURN
7910 NX(SW)=NX(EN):NY(SW)=NY(EN):LR(SW)=
     LR(EN):SP(SW)=SP(EN):EN=EN-1:RETURN
9000 TAGOFF:MODE 1:INK 0,0:INK 1,15:BORD
     ER 0:PAPER 0:PEN 1:SPEED KEY 20,3
9005 PRINT "*BREAK*":END
9500 TAGOFF:MODE 1:INK 0,0:INK 1,15:PAPE
     R 0:PEN 1:BORDER 0:SPEED KEY 20,3
```

```
9510 PRINT"ERROR";ERR;"IN LINE";ERL:STOP
9600 N1$=CHR$(214):N2$=CHR$(215):N3$=CHR
     $(213):N4$=CHR$(212):N5$=CHR$(210):
     N6$=CHR$(208)
9605 TAGOFF
9610 B$=" ":LOCATE 1,1:PRINT N2$;B$;BL$;
     B$;B$;B$;N1$;BL$;BL$;N2$;B$;N2$;B$;
     B$;N1$;B$;BL$;BL$;N2$
9620 LOCATE 1,2:PRINT BL$;N2$;BL$;B$;N5$
     ;B$;N3$;N5$;N5$;B$;B$;BL$;B$;B$;BL$
     ;B$;BL$;N5$;BL$
9630 LOCATE 1,3:PRINT BL$;N3$;BL$;B$;N6$
     ;B$;B$;N6$;N6$;N2$;B$;B$;B$;B$;BL$
     ;B$;BL$;N6$;BL$;N2$
9640 LOCATE 1,4:PRINT BL$;B$;N3$;B$;B$;B
     $;N3$;BL$;BL$;N4$;B$;N3$;BL$;BL$;N4
     $;B$;BL$;BL$;BL$;N4$:RETURN
9700 TAGOFF:FOR F=1 TO 20:PEN 1:LOCATE 1
     ,1+F
9710 PRINT F:PEN 2:LOCATE 6,1+F:PRINT RK
     $(F):NEXT F:RETURN
10000 SOUND 1,0,60,5,2,0,15:XE=DX(WC)-RN
      D*32:YE=DY(WC)+RND*16:IF SR(PL)>8
      THEN 10100
10010 IF SR(PL)>10 THEN 10100 ELSE IF YE
      >220 THEN YE=220
10011 IF YE<40 THEN YE=40
10012 PLOT XE,YE,9:PRINT E1$;:MOVE XE,YE
      -16:PRINT E2$;
10015 PLOT XE,YE,2:PRINT E1$;:MOVE XE,YE
      -16:PRINT E2$;
10020 PLOT XE,YE,9:PRINT E1$;:MOVE XE,YE
      -16:PRINT E2$;
```

```
10030 IF XE-SX<96 AND XE>SX-64 AND YE-SY
      <32 AND YE>SY-16 THEN 11000
10035 IF Z=33 THEN Z=0:RETURN
10040 DX(WC)=DX(ND):DY(WC)=DY(ND):ND=ND-
      1:PLOT XE,YE,0:PRINT BL$(2);:MOVE
      XE,YE-16:PRINT BL$(2);:RETURN
10100 IF YE>220 THEN YE=220
10111 IF YE<60 THEN YE=60
10112 INK 0,6:CL=INT(RND*15)+1:PLOT XE,Y
      E,CL:PRINT EX$(3);:PLOT XE,YE-16:P
      RINT BL$(3);:PLOT XE,YE-32:PRINT E
      9$;
10115 IF XE-SX<88 AND XE>SX-88 AND YE-SY
      <44 AND YE>SY-12 THEN 11000
10117 INK 0,0:IF Z=33 THEN Z=0:RETURN
10120 DX(WC)=DX(ND):DY(WC)=DY(ND):ND=ND-
      1
10125 PLOT XE,YE,0:PRINT BL$(3);:MOVE XE
      ,YE-16:PRINT BL$(3);:MOVE XE,YE-32
      :PRINT BL$(3);:RETURN
10500 IF SR(PL)>10 THEN GOSUB 10125:RETU
      RN
10510 PLOT XE,YE,0:PRINT BL$(2);:MOVE XE
      ,YE-16:PRINT BL$(2);:RETURN
11000 HF=L(2,PL):SW=0:DD=0:Z=0:SOUND 1,0
      ,60,15,1,0,9:PLOT SX,SY,7:PRINT EX
      $(3);:IF SY>24 THEN PLOT SX,SY-16:
      PRINT E9$;
11011 FOR F=1 TO 300:IS=INKEY$:INK INT(R
      ND*15),INT(RND*26):NEXT F:FOR F=1
      TO 1000:NEXT F
11012 IF Z1=50 THEN Z1=60:ND=0:EN=0:RETU
      RN
11013 IF Z1=60 THEN RETURN
11014 IF Z1=70 THEN 12000
11015 NS(PL)=NS(PL)-1:EN=0:ND=0:ET=0:FF=
      0:MB=0:HB=0:SB=0:FS=0
11020 IF NP=1 AND NS(1)=0 THEN 12000 ELS
      E IF NP=1 THEN 11027
11025 PL=3-PL:IF NS(PL)=0 THEN PL=3-PL:I
      F NS(PL)=0 THEN 12000
11027 IF SR(PL)/2=INT(SR(PL)/2) THEN DD=
      1
```

```
11030 GOSUB 950:RETURN
11900 MODE 1:INK 0,0:INK 1,13:INK 2,6:RE
      TURN
12000 MODE 0:INK 0,0:CLG 0:BORDER 0:FOR
      F=1 TO 70:PAPER 0:INK 1,INT(RND*16
      ):TAGOFF:PEN 1:LOCATE 7,11:PRINT"G
      AME OVER":NEXT F
12010 WA(1)=0:WA(2)=0:N=1:IF SC(N)<=HC(2
      0) THEN N=2:IF SC(N)<=HC(20) OR NP
      =1 THEN 12500
12015 FOR F=20 TO 1 STEP-1:IF SC(N)>HC(F
      ) THEN NEXT F
12020 F=F+1:WA(N)=F:FOR G=20 TO F+1 STEP
      -1:HC(G)=HC(G-1):HC$(G)=HC$(G-1):N
      EXT G
12025 HC$(F)=SC$(N)+" "+RIGHT$(STR$(SR(N
      )),1)+" "+N$(N):HC(F)=SC(N):N=N+1:
      IF SC(N)<=HC(20) OR NP=1 OR N=3 TH
      EN 12500 ELSE 12015
12500 IF HC=0 THEN 500
12502 INK 2,6:INK 0,0:MODE 0:CLG 0:BORDE
      R 0:INK 3,INT(RND*15)+12:INK 1,INT
      (RND*15)+12:PAPER 0:PEN 1
12505 GOSUB 9600
12507 IF SC(2)>SC(1) AND SC(1)>0 THEN WA
      (1)=WA(1)+1
12508 IF Z=40 THEN WA(1)=0:WA(2)=0
12510 FOR F=1 TO 20
12515 IF HC(F)=0 THEN 12545
12520 LOCATE 2+(F>9),F+5:PAPER 0:IF F=WA
      (1) OR (F=WA(2) AND NP=2) THEN PAP
      ER 2
12530 Z$=STR$(F)+" "+HC$(F):PRINT Z$
12540 NEXT F:PAPER 0
12545 IF INKEY$="" AND Z=0 THEN 12545
```

```
12550 IF Z=40 THEN FOR F=1 TO 2000:IF IN
      KEY$="" THEN NEXT F
12555 IF Z=40 THEN 500
12600 INK 0,0:PAPER 0:CLS
12610 FOR F=1 TO NP:PRINT:AV(F)=AV(F)+(S
      C(F)-AV(F))/5:FOR G=RN(F) TO 20:IF
       AV(F)>RK(G) THEN NEXT G
12620 MODE 1:G=G-1:PEN 1:IF G=0 THEN G=1
12621 IF G>RN(F) THEN PRINT N$(F);:PEN 3
      :PRINT" YOU HAVE BEEN PROMOTED FRO
      M":GOTO 12630
12622 IF G<RN(F) THEN PRINT N$(F);:PEN 3
      :PRINT" YOU HAVE BEEN DEMOTED FROM
      ":GOTO 12630
12625 PEN 1:PRINT N$(F);:PEN 3:PRINT" YO
      UR RANK IS STILL":PEN 2:PRINT RK$(
      G):GOTO 12635
12630 PEN 2:PRINT RK$(RN(F));:PEN 3:PRIN
      T" TO ";:PEN 2:PRINT RK$(G):RN(F)=
      G:PR(P1(F))=RN(F)
12635 FOR G=1 TO 700:I$=INKEY$:NEXT G
12640 IF INKEY$="" THEN 12640 ELSE NEXT
      F:GOTO 500
13000 SM=0:FS=0:FOR F=1 TO 1000:NEXT F
13001 IF MB THEN TAGOFF:LOCATE MX,MY:PAP
      ER 11:PRINT "  ":TAG
13002 SR(PL)=SR(PL)+1:GOSUB 6000
13005 SS(4,PL)=SS(4,PL)-50*(SS(4,PL)<750
      ):IF SR(PL)/4=INT(SR(PL)/4) THEN S
      S(2,PL)=SS(2,PL)+50
13007 IF SR(PL)/2=INT(SR(PL)/2) THEN DD=
      1 ELSE DD=0
13010 L(1,PL)=L(1,PL)+0.05:L(2,PL)=L(2,P
      L)+1+(L(2,PL)>8):L(3,PL)=L(3,PL)-0
      .006:L(4,PL)=L(4,PL)-0.1
13020 L(5,PL)=L(5,PL)+16:HF=L(2,PL)
13030 TAGOFF:WINDOW #1,1,20,13,24:CLS #1
      :PLOT SX,SY,1:TAG:PRINT SU$(LR);
13031 PLOT 0,220,0:PRINT STRING$(20,CHR$
      (156));
13032 I$=INKEY$:I$=INKEY$:GOSUB 13165
```

```
13035 EN=0:MB=0:HB=0:SB=0:ND=0:ET=0:NS=1
      2-8*DD:SO=0:TAG:RETURN
13165 NS=12:FOR F=1 TO 3:XC(F)=640+(3-F)
      *16:YC(F)=398-F*32:SL$(F)="":FOR G
      =1 TO 4:SL$(F)=SL$(F)+SH$(F)+STRIN
      G$(3-F,CHR$(156)):NEXT G,F
13168 IF DD THEN FOR F=1 TO 4:PX(F)=640+
      176*(F-1):PY(F)=350:GE(F)=1:NEXT F
      :NS=4
13170 RETURN
14000 SM=0:DD=0:FOR F=1 TO 1000:NEXT F:S
      R(PL)=SR(PL)+1:GOSUB 6000
14005 SS(1,PL)=SS(1,PL)+50:SS(3,PL)=SS(3
      ,PL)+50:L(3,PL)=L(3,PL)-0.006:L(0,
      PL)=L(0,PL)-(L(0,PL)<10)
```

```
14010 GOTO 13030
15000 MODE 1:INK 1,6:INK 2,18:INK 3,26
15010 GOSUB 16000:LOCATE 1,7:PEN 1:PRINT
       "MENU"
15020 LOCATE 1,9:PEN 3:PRINT "LEFT TO IT
      SELF THE COMPUTER WILL LOOP   THRO
      UGH OPTIONS 8,6 AND 5 CONTINUALLY.
       PRESSING ANY KEY DURING THESE RE
      TURNS   TO THE MAIN MENU."
15030 GOSUB 16100
15040 GOSUB 16000::LOCATE 1,7:PEN 1:PRIN
      T "PLAYERS & RANKINGS"
15050 LOCATE 1,9:PEN 3:PRINT "BEFORE A G
      AME IS PLAYED IT IS NECESSARY TO F
      ORM A LIST OF PLAYERS TAKING PART
       (MENU OPTION 3).  THE COMPUTER S
      TORES   THE NAME OF EACH PLAYER &
      HIS OR HER    RANKING SO PLAYERS C
      AN THEN BE SELECTED BY NUMBER."
15060 LOCATE 1,16:PRINT "AFTER EACH GAME
       THE PLAYERS CONCERNED   WILL BE P
      ROMOTED OR RELEGATED AND THEIR NEW
       RANKS STORED AUTOMATICALLY BY THE
       COMPUTER.  (NOTE: THE RANKS ARE
              CALCULATED ON AVERAGE SCO
      RES)"
```

```
15070 GOSUB 16100
15080 GOSUB 16000:LOCATE 1,7:PEN 1:PRINT
       "THE GAME"
15090 LOCATE 1,9:PEN 3:PRINT "YOU ARE IN
      COMAND OF A NUCLEAR SUBMARINEPATR
      OLLING THE NORTH ATLANTIC DURING
       WORLD WAR VII.  YOUR MISSION IS
      TO      DESTROY ENEMY SHIPS AND AN
      Y ENEMY SUBS  WHICH CROSS YOUR PAT
      H."
15100 LOCATE 1,16:PRINT "YOU HAVE THREE
       SUBS INITIALLY, BUT AN   EXTRA IS
       AWARDED AT 5000 POINTS.":GOSUB 161
      00
15110 GOSUB 16000:LOCATE 1,7:PEN 1:PRINT
       "HAZARDS"
15120 LOCATE 1,9:PEN 2:PRINT "DESTROYERS
      "
15130 LOCATE 1,11:PEN 3:PRINT "AFTER EAC
      H WAVE OF THE ENEMY FLEET YOU  MUS
      T CONTEND WITH THE DESTROYERS.
        THESE MOVE FROM RIGHT TO LEFT,
      CIRCLE    TWICE, AND THEN CONTINUE
      LEFT.":GOSUB 16100
15140 GOSUB 16000:LOCATE 1,7:PEN 2:PRINT
       "DEPTH CHARGES"
15150 LOCATE 1,9:PEN 3:PRINT "ALL SHIPS
      DROP THESE, INCLUDING MTBS ANDDEST
      ROYERS.  GIVE THEM A WIDE BERTH, A
      S THEIR EXPLOSIONS ARE LARGE (ESPE
      CIALLY   AFTER SCREEN #9, WHEN THE
      EXPLOSIONS    BECOME HYPER-HUGE!).
      "
15160 GOSUB 16100
```

```
15170 GOSUB 16000:LOCATE 1,7:PEN 2:PRINT
       "MOTOR TORPEDO BOATS (MTBS)"
15180 LOCATE 1,9:PEN 3:PRINT "THESE OCCU
      R ON ALL SCREENS AND TEND TO  DROP
       MORE THAN THEIR FAIR SHARE OF DEP
      THCHARGES!  HITTING ONE OF THESE A
      WARDS A MYSTERY BONUS."
15190 GOSUB 16100:GOSUB 16000:LOCATE 1,7
      :PEN 2:PRINT "ENEMY SUBMARINES"
15200 LOCATE 1,9:PEN 3:PRINT "ON SCREEN
      #1 THESE ARE PRETTY HARMLESS- OCCU
      RING SINGLY AND NOT FIRING.  HOWEV
      ERON SCREEN #3 THEY BECOME 'LASER-
      SUBS'   WHICH FIRE AT YOU.  ON SCR
      EEN #3 THEY   CAN ONLY FIRE AT A S
      MALL ANGLE TO THE"
15210 LOCATE 1,14:PRINT "HORIZONTAL, BUT
       THIS ANGLE INCREASES AS YOU PROGR
      ESS TO HIGHER SCREENS.  THE    NUM
      BER OF SUBS ATTACKING YOU AT ONE T
      IMEINCREASES BY ONE EVERY TWO SCRE
      ENS.":GOSUB 16100
15220 GOSUB 16000:LOCATE 1,7:PEN 2:PRINT
       "HOMING BOMBS"
```

```
15230 LOCATE 1,9:PEN 3:PRINT "THESE OCCU
      R FROM SCREEN #5 ONWARDS.    THE
      HEAT SEEKING MICROFREEP-WAVE
       NUETRALIZER HOMES IN ON THE GYRO
      SCOPIC  TURBOROTATIONAL MOTION OF
      YOUR SUB'S    PROPELLER.  ALTERNAT
      IVELY THEY CAN BE"
15240 LOCATE 1,14:PRINT "CONTROLLED BY P
      LAYER 2 (OR ANYBODY ELSE)USING ";:
      PEN 1:PRINT"Q";:PEN 3:PRINT " AND
      ";:PEN 1:PRINT "E";:PEN 3:PRINT "
      ON THE KEYBOARD."
15250 LOCATE 1,17:PRINT "SHOOTING A HOMI
      NG BOMB GAINS A MYSTERY  BONUS.":G
      OSUB 16100
15260 GOSUB 16000:LOCATE 1,7:PEN 2:PRINT
       "STRAIGHT BOMBS"
15270 LOCATE 1,9:PEN 3:PRINT "THESE OCCU
      R FROM SCREEN #7 ONWARDS.    THEY
       SIMPLY MOVE STRAIGHT DOWNWARDS.
        HOWEVER, THEY ARE SOMEWHAT FASTE
      R THAN  DEPTH CHARGES!":GOSUB 1610
      0
15280 GOSUB 16000:LOCATE 1,7:PEN 1:PRINT
       "CONTROLS"
15290 LOCATE 1,9:PEN 3:PRINT "A JOYSTICK
       IS ESSENTIAL TO PLAY NSUB.   NORM
      AL MOTION OF THE JOYSTICK MOVES YO
      URSUB IN THE REQUIRED DIRECTION, H
      OWEVER  THE FIRING IS A LITTLE MOR
      E TRICKY-"
15300 LOCATE 1,14:PRINT "IF YOUR SUB IS
      STATIONARY OR MOVING    UPWARDS (
      AT ALL) THEN PRESSING THE FIRE BUT
      TON WILL FIRE UPWARDS.  AT ALL OTH
      ER TIMES IT WILL FIRE IN THE DIREC
      TION IT  IS POINTING.":GOSUB 16100
15310 GOSUB 16000:LOCATE 1,13:PEN 1:PRIN
      T "HAPPY HUNTING BUCKO....":GOSUB
       16100:RETURN
15990 GOTO 15990
16000 CLS:GOSUB 9600:PEN 1:FOR F=1 TO 4:
      LOCATE 26,F:PRINT "INSTRUCTIONS":N
      EXT F:RETURN
16100 I$=INKEY$:PEN 2:LOCATE 1,24:PRINT
      "PRESS <SPACE> TO CONTINUE":I$=INK
      EY$
16110 IF INKEY$<>" " THEN 16110 ELSE RET
      URN
```

ACU