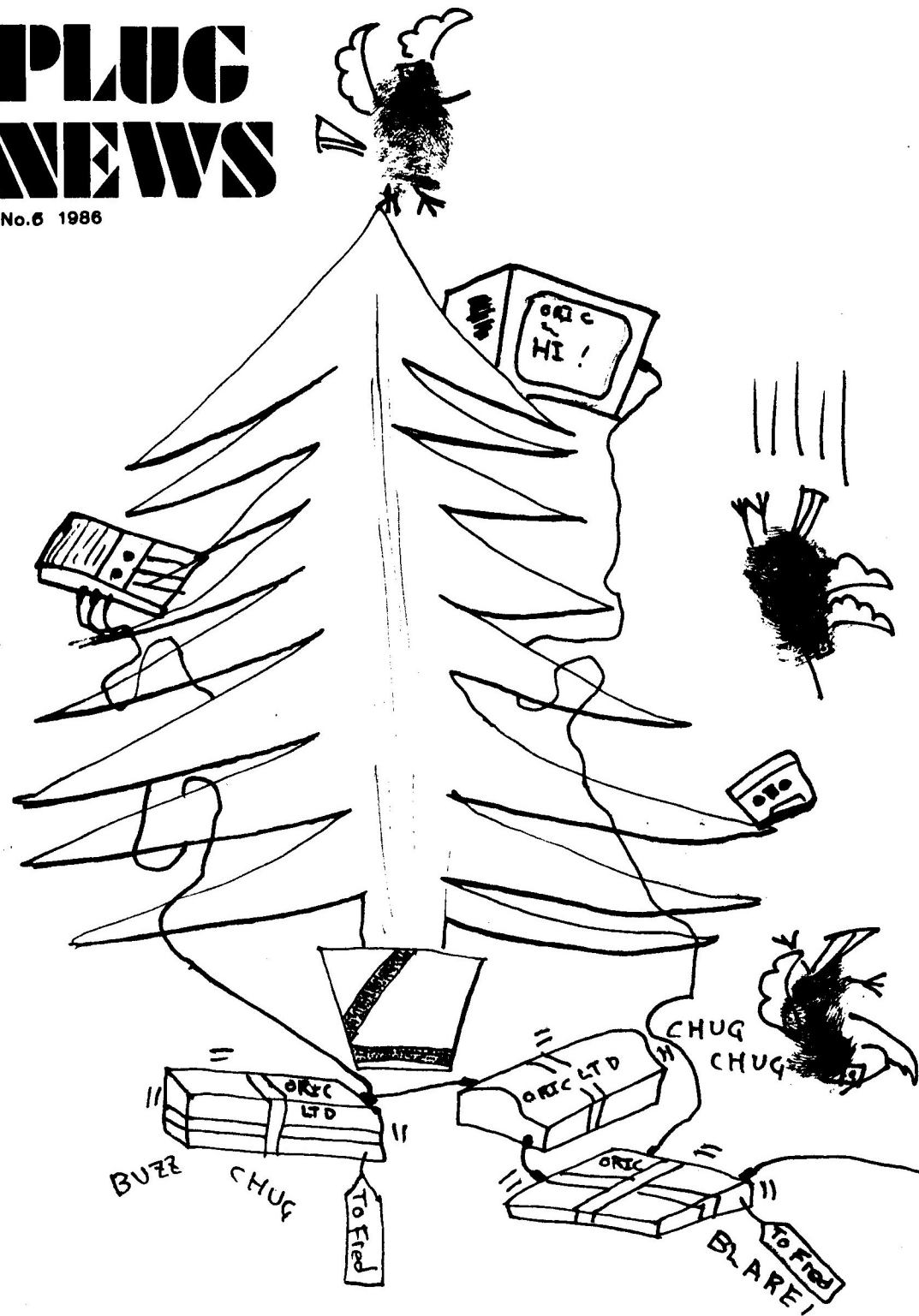# PLUG NEWS

No.6 1986

EDITOR'S COMMENTS

"Here we are again, into the cold and dark nights with Christmas looming closer and closer everyday.

Well this issue is packed with thing's for you to try over the Christmas hol's. And the tape is better than ever. We have such thing's as 'Damson in Distress', thankyou Paul.

It's money grabbing time again! We wish to take your hard earned money off you. This will be £3:00 for 4 magazines and 2 tapes.

Please may we have more entries to the "Name That Bird" competition. The poor thing hasn't been christened and it's getting feed up with being called birdie. As Huw is the only entrant with 'Dudley', we need something a little more original (no offence intended Huw).

The next meeting will be on the 11th January 1987. At Paul's house at 2:30pm

Well bye for now see you in the new year.

DUDLEY? who does he think he is?

You would be better off at the 'atari' club mate!
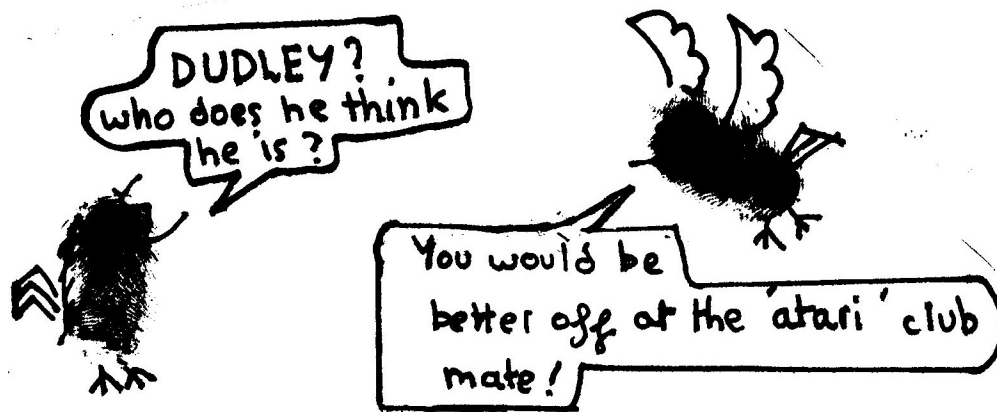
REVIEW

DAMSEL IN DISTRESS: is an absolutly brilliant game. Probably the best game on the market for the ORIC. It is a platform game in which you must try to rescue ANNA (a scientist) since she has got lost in a mine. The story of how she got lost is shown in a superb 'Strip Cartoon' displayed while the game is loading. The game uses smooth 'cartoon' graphics backed up by a 4-track rendition of New Life by Depeche Mode. The twenty screens are varied and very colourful.

```
GRAPHICS.....: *****
SOUND........: *****
ORIGINALITY..:  ****
ADDICTIVENESS: *****

OVERALL......: ***** (*)!
```

CHRISTMAS WITH YOUR ORIC

Oric's generally enjoy christmas. It is a time to celebrate what good computers they are. But there are a few points to remember.
Although the user may be boozing away NONE must be given to an ORIC or strange results may appear (it doesn't matter if it is a CBM 64 or spectrum, they are drunk enough anyway). If the user has been boozing, a fate may befall ATMOS computers, for when unsobber they may look they may look like christmas puddings with raisens in. So remember not to put it in brandy and light it. Once again this

precaution need not be taken with
commodores because their tough outer
shell of plastic will protect it from
the flames.

IK resistor.   KEYS

Tough outer shell
of plastic.

COMMODORE CROSS-SECTION
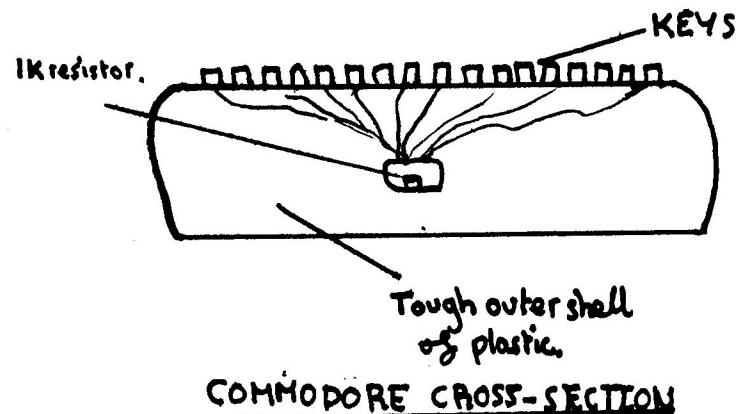
⊠When having a new ORIC (ie an atmos)
ORIC-1's tend to feel neglected. If
this happens please contact the
chairman of the ROYAL SOCIETY for
NEGLECTED ORIC's on 384263462736
  You will then be given a brochure of
things to do to cheer it up (watch
out my ORIC-1).
  Also you must not subject your ORIC
to articles entitling themselves
'Christmas with your ORIC' which are
just trying to be funny.

To end on a happy note type in this
complicated program:

10 PRINT"MERRY CHRISTMAS TO ALL
ORIC's"

                Huw .

THE ALIENS ARE COMING TO EARTH!
TYPE IT IN.
KEYS ARE..CTRL-C = STOP DOMINATION


```
0 POKE#26A,10:PAPER0:INK7
2 CLS
5 GOTO100
10 PAPER0:INK7
20 FORN=46336TO47087STEP1
25 RESTORE
30 FORA=NTON+7
40 READX
50 POKEA,X
60 NEXTA,N
65 CALL#F8D0'#F42E ON ORIC-1
70 DATA0,31,21,31,4,31,4,10
100 FORN=48001TO49119STEP2
110 RA=INT(RND(1)*125):IFRA<32THEN110
120 IFRA>125THEN110
130 POKEN,RA
140 NEXTN
200 GOTO10
```

Huw

This program is designed to
demonstrate how it is possible to
move an object smoothly (pixel by
pixel) even on the TEXT screen. The
technique used by this program has
been used by software companys like
IJK (with Damsel in distress or
invaders).
                Paul

```
1 CLS
2 FORN=1TO6:READA,B:NEXT
3 GOSUB500
4 RESTORE
5 FORX=2TO33
10 FORN=1TO6
20 READA,B
25 G$=" "+CHR$(A)+CHR$(B)
30 PLOTX,12,G$
50 NEXT
60 RESTORE
70 NEXT
80 PLOTX,12,"    "
90 END
100 DATA65,32,66,67,68,69,70,71,72,73,7
4,75
500 FORN=46600TO46687
510 READA
520 POKEN,A
530 NEXT
540 RETURN
600 DATA0,12,30,63,63,30,12,0
610 DATA0,6,15,31,31,15,6,0
620 DATA0,0,0,32,32,0,0,0
630 DATA0,3,7,15,15,7,3,0
640 DATA0,0,32,48,48,32,0,0
650 DATA0,1,3,7,7,3,1,0
660 DATA0,32,48,56,56,48,32,0
670 DATA0,0,1,3,3,1,0,0
680 DATA0,48,56,60,60,56,48,0
690 DATA0,0,0,1,1,0,0,0
700 DATA0,24,60,62,62,60,24,0
```

PLANETS will print a display of 3D, random positioned, random sized planets on the HIRES screen.

```
100 REM PLANETS
110 HIRES
120 REPEAT
130 Z=INT(RND(1)*240):T=INT(RND(1)*200)
140 S%=RND(1)*25
150 SS%=S%*S%
160 FORY=-S%TOS%
170 IFY+T<00RY+T>199THEN NEXTY:UNTILFAL
SE
180 X%=SQR(ABS(SS%-Y*Y))
190 X2=2*X%
200 FOR I=-X% TO X%
210 IF(RND(1)*X2)-X%<ITHENF%=1ELSEF%=0
220 C=I+Z:U=Y+T
230 IFC<160RC>2390RU<00RU>199THEN250
240 CURSETC,U,F%
250 NEXTI,Y
260 INKINT(RND(1)*7)+1
270 UNTILFALSE
```

INVADORS
---------- This game by Paul and Lloyd follows similar lines to the old unfavourite game. Bombs are fired down at you from above and you may fire rockets up to the enemy. There are 6 to shoot the keys are :-

H .. LEFT
J .. RIGHT
A .. FIRE

```
50 Z=INT(RND(1)*36)+2:Y=7
100 CLS
120 INK 1:PAPER 0:PRINT"           INV
ADOR":PRINT"          H < J > @ \"
140 GETA$: CLS:X=2:POKE#24E,6:POKE#24F,
1
160 PLOT0,4,"  (*)  (*)  (*)  (*)
(*)  (*)  ":PLOT1,4,2
170 PLOT0,6," /\/\/\/\/\/\/\/\/\/\/\
/\/\/\/\/\/\":PLOT1,6,4
```

```
180 REPEAT
195 PLOTZ,Y,32:Y=Y+1:IFY=21THENPULL:GOT
O1000
197 PLOTZ,Y,'''
200 IFM=6THENG=1:PULL:GOTO380
220 U$=KEY$
240 IF U$="H" THENX=X-1:PLOTX+3,21," "
260 IF U$="J"THENX=X+1:PLOTX-1,21," "
280 IFX<2THENX=2
300 IFX>35THENX=35
320 PLOT X,21,"(*)"
340 IF U$="A" THEN PULL:GOTO440
380 IFG=1 THEN PLOT10,10,"WELL DONE":EN
D
400 UNTIL FALSE
420 DOKE#24E,#105:END
440 IFSCRN(X+1,6)=32THEN445
443 GOTO600
445 FORN=19TO5STEP-2:PLOTX+1,N+2,32:PLO
TX+1,N,"!"
450 NEXT:PLOTX+1,5,32
460 IFSCRN(X+1,4)=32THENGOTO180
480 IFSCRN(X+1,4)=42THENEXPLODE:PLOTX,4
," ":M=M+1:GOTO180
500 SHOOT:PLOTX+1,4,32
520 GOTO180
600 FORN=19TO7STEP-2:PLOTX+1,N+2,32:PLO
TX+1,N,"!":SHOOT
612 PLOTX+1,6,32:PLOTX+1,19,32:GOTO180
1000 IFSCRN(Z,21)=32THENZ=INT(RND(1)*36
)+2:Y=7:GOTO180
1010 ZAP:SHOOT:CLS:FORN=0TO7:PAPERN:WAI
T9:NEXT:END
```

This program - 'Wool' will draw a
picture of a 'Ball' of Wool' on the
HIRES screen. The picture is generated
using SIN and COS curves, and although
does take a little while to run, is
very effective.

```
100 DEFFNR(Z)=INT(Z-((Z-INT(Z))>.49999)
)
110 REM BALL OF WOOL
120 HIRES
130 S%=50
140 CURSET0,0,3
150 FORA=0TO125.7STEP0.1
160 X=(S%*SIN(A))+120:Y=(S%*COS(A)*SIN(
A*0.95))+100
170 X=FNR(X):Y=FNR(Y)
180 IFA=0THENCURSETX,Y,1:GOTO200
190 DRAWX-OX,Y-OY,1
200 OX=X:OY=Y
210 NEXT
```

```
0 TW=100000
5 POKE#26A,10
10 PAPER0:INK7
20 CLS
30 PRINTCHR$(4):PRINT" "CHR$(27);"J
REACTIONS TESTER"
40 PRINTCHR$(4)
45 PRINT:PRINT:PRINT:PRINT
50 PRINT" >Press RETURN when the screen
changes"
70 PRINT:PRINT" > PRESS ESCAPE"
80 REPEAT:GETA$:UNTILASC(A$)=27
110 PRINT:PRINT" PRESS DELETE TO START"
:REPEAT:GETA$:UNTILASC(A$)=127
115 WAIT40
120 CLS
140 FORA=1TOINT(RND(1)*1000):
145 IFPEEK(520)<>56THENPRINT:PRINT" CHE
AT":WAIT60:GOTO10
150 NEXT
155 PAPER7:WAIT2:PAPER0
160 PING:DOKE630,10000:REPEAT:GETX$:UNT
ILASC(X$)=13
170 TI=10000-DEEK(630)
```

```
 175 IFTI<TWTHENPRINT"     A NEW LOW SCO
RE"
 180 CLS:PRINT:PRINT" YOU TOOK "TI/100"
SECONDS TO PRESS "
 185 PRINT:PRINT" RETURN"
 190 PLOT8,26,"PRESS SHIFT"
 191 REPEAT:UNTILPEEK(#209)=167ORPEEK(#2
09)=164
 192 CLS
 195 IFTI/100<TWTHENTW=TI/100:PRINT:GOTO
200
 196 GOTO210
 200 INPUT" PLEASE ENTER YOUR NAME";NA$
 205 PRINT:PRINT:PRINT" PRESS ESCAPE":RE
PEAT:GETA$:UNTILASC(A$)=27
 210 CLS:PRINT:PRINT"  THE QUICKEST REAC
TIONS ARE"
 220 PRINT:PRINTNA$"'s WITH "TW" SECONDS
"
 230 PRINT:PRINT:PRINT"PRESS SPACE":REPE
AT:GETA$:UNTILA$=" "
 240 GOTO10
```

Reactions is quite a long program but is based simply on the ORIC's own clock. A clock is an electronic device inside a computer which syncronises the computers different operations. It counts in hundredths of seconds coming down from 65535, when it reachs 0 it starts again.

This is what is used in Reactions, because the only command to do with time is wait, which would not work obviously.

The program counts up to a random number then pings and flashes the screen, and sets the clock to 10000, this keeps counting down while your brain tells you to press return. When return is pressed it remembers the number in the clock. 10000-this number is how long it took you in 100th's?

PROJECTS
========

Menu Selecter:

This device allows you to select an option form a menu. It looks like a light pen, and uses a similar circuit to the one you met last time. The circuit diagram is shown below:

IDC socket

leave

D0   GND

LDR

leave

PRESET VARIABLE RESISTOR (10K)

The only additional component is a 'preset'. This is similar to a resitor, but its resistance may be varied. The LDR may be fitted into an old pen barrel or a cardboard tube etc.. A typical program is shown below.

```
0 PAPER0:INK7
1 POKE#303,0
5 CLS
10 PLOT5,2,"ZAP..."
20 PLOT5,4,"PING.."
30 PLOT5,6,"SHOOT."
40 PLOT5,8,"END..."
50 FORN=1TO4
60 PLOT13,N*2,127:WAIT2
70 IFPEEK(#301)=127THEN100
80 PLOT13,N*2,32:NEXT
90 GOTO50
100 POKE#303,255:PLOT13,N*2,32
110 ON N GOSUB200,300,400,500
120 POKE#303,0:GOTO50
200 ZAP:RETURN
300 PING:RETURN
400 SHOOT:RETURN
500 POP:END
```

ORIC

from Paul and his ORIC
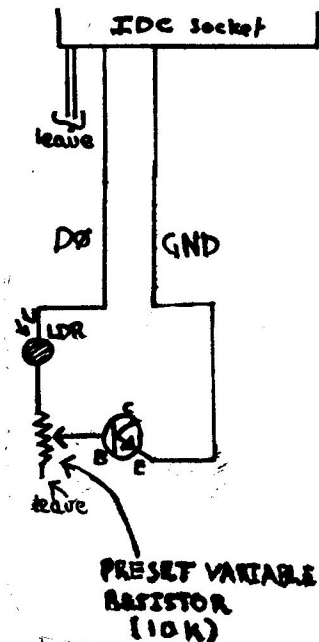
Line 1 sets the printer port to OUTPUT mode. Kill yourself if you don't understand line 5, lines 10-40 print the menu options.
Line 60 plots a forground square, line 70 reads the printer port and if it thinks there is a signal, if goes off to line 100 (presuming the selector is on the option with the white square, and line 80 deletes the white square.
Line 100 swiches the port to output, neccesary if you are using sound. Line 110 sends the program off to 200,300,400 or 500 depending on whether N=1,2,3 or 4.
If the program does not work, try:

1) Changing the value of the preset.
2) If this fails, try altering the brightness etc. of you T.V./Moniter.

HELP & HINTS

MAKING A NOISE

Last time we talkedabout making a noise,this time we will be talking about making a noise.

There is a very useful command called MUSIC. TRY THIS:-

MUSIC 1,3,1,15
then turn it off with
MUSIC 1,3,1,0

As with the SOUND command the first number is the sound channel. The second number is the octave, 0-lowest 6-highest. The 3rd number is the note in the octave starting at 1 and going up in semi-tones to 12. The last number is the volume, as in the SOUND command.TRY:-
MUSIC 1,3,2,15
Then switch the sound off.
The note sound have been one semi-tones higher than the last.
Try more of these from your head until you fully understand.
After a that boring stuff we will get onto the more exciting parts now!
You can try making programs up from what you know now. TRY:-

```
10 FORN=1TO12
20 WAIT20
30 MUSIC1,3,N,N
40 NEXTN
50 MUSIC1,3,0,0
```
Now run it.

The sound should go up in semi-tones, getting louder by each note. Can you see why this is? I hope so.
In the FOR-NEXT loop 'N' is increased by one each time. In the MUSIC command 'N' is in the volume and semi-tones controls. WAIT is an obvious command even if you don't know how it works, it waits for the amount of hundreths of seconds after 'WAIT'.

HUW

'MAZING!

Try this one!

Huw

← IN

```
10 REM SOPHISTOCATED PROGRAM
20 SOUND2,20,15:WAIT20
30 GOTO90                80 UNTIL ON A=200,300,400
40 FORA=1TO10            90 REM TAKES INTERGRATED LOOP PATTERN
45 ABS(-4)=SIN(A)*8 TO INTERUPTS
50 READN                100 PLAY0,0,0,0
60 POKE#22B,N           110 IFA=0THENENDELSE40
62 COS(5)=90*A/2        120 GOTO40
65 NEXTA'CALL NEXT ROUTINE TO HAPPY
70 DATA#22A,#1BA,#30,#FF,#11B,#77,#34,#
        27B,#11AC,#2AC
```

ORIC FAX!

Did you know that the highest number the ORIC can handle is about 1..7*10↑38, and using a simple loop, ie:

```
10 A=A+1:
20 GOTO10
```

It would take around 100000000000000000000 million centurys to reach this number.

by Paul

WONDER HOW LONG IT TOOK TO WORK THAT OUT

This program was sent in by Huw. Try and work out what it does and if you get stuck type it in, (don't take it too seriously!!).

THE FARMER's SHOOTING VERMIN.

VERMIN MEANS PARASITIC OR A PEST.

OH, BAD SHOT!

THE VERMIN's GETTING AWAY.

I DIDN'T KNOW ZX 81's COULD RUN THAT FAST!

BANG!