It's a boy...

    Tom, you just weren't here enough. So many
things were going wrong that it was harder and
harder to blame them all on you. We needed an-
other scapegoat. We decided to get a pizza in-
stead. A trip to the local cheese Frisbee shop
was a pleasant surprise! We got a pizza - and we
got another scapegoat! Meet Grady, the newest
addition to this menagerie. First thing he did
was to sit down and beat all of the high scores I
had set on our games. Not a good sign...

```
***************************************************************************
*                                                                         *
*      Side            Title                        Turns Count           *
*                                                                         *
*                                              CTR-41          CTR-80     *
*                                                                         *
*     ****        Xmas Cover                   10 & 258      6 & 150      *
*    **    **     Right Triangles              47 & 287     27 & 166      *
*    **    **     Space War (System SPCWAR /)  193 & 400    112 & 232     *
*     ****        Caterpillar (System CENT /)  231 & 431    134 & 250     *
*                                                                         *
*                                                                         *
*      **         Elephant Adventure           10 & 258      6 & 150      *
*     ***         Message Instructions         154 & 370     89 & 215     *
*      **         Message (disk only)          195 & 405    113 & 235     *
*     ****        Code It (Mem 32554 Sys CODEIT)                          *
*                     Model I non-disk only    233 & 438    135 & 254     *
*                                                                         *
* CLOADing Notes - This tape may load at an ODD RECORDER VOLUME.  Set the volume LOWER than normal for your first attempt, then
* increase it slightly until the tape loads.  If the first copy of a program won't load, try the second.  That is why it is *
* there.  Model I only:  Put an AM radio very close to the keyboard, tune it to a non-station, and you can listen to the tape *
* loading in.  Adjust the recorder volume so the hash from the computer sounds 'cleanest' during a load.                      *
*                                                                         *
* Model III notes - Load the tapes at the LOW speed (POKE 16913,0).  An occasional program will NOT run.  There may be upper and *
* lower case goofs in some programs.  Arrow keys often are translated as follows: (↑, ↓, ←, →) = ([, \, ], ^).                *
*                                                                         *
*                                                                         *
***************************************************************************
```

    'Tis the season to be jolly, so we have a Xmas Cover. Isn't that nice?

    Pythagoras was a square... Right Triangles is a tutorial on the
special properties of triangles that have a 90 degree angle. Triangles
with more than one 90 degree angle will be discussed on Thursday's talk on
the creation of a Klein bottle...

    Christmas - a time for fun and games. So let's have a Space War! Your
ship is travelling over mountainous terrain when enemy ships appear. You
move your ship using the up and down arrow keys and you try to blast the
enemy ships with the left arrow key before they hit you. Oh boy, oh boy!

    Space War is in machine language, so to load it type 'SYSTEM'<enter>,
answer the '*?' with 'SPCWAR'<enter>, and when the tape is through loading
answer the new '*?' with '/'<enter>. The addresses (in hex) are: Start =
7000, End = 7C98, Entry = 7C8A.

    And in the interest of not being outdone, there is ANOTHER machine
language game in this issue - Caterpillar! This game (as you may be able
to guess from the filename 'CENT') is based on a popular video game. If

you are not familiar with the game I am talking about, a whole string of 'O's appears at the top of the screen. The object is to destroy all of those 'O's. However, if you hit the string in the middle, the string splits into two strings. You soon have 'O's flying all over the place!

To load the 'bugger' (may be the last bad pun you get from me in 1981), type 'SYSTEM'<enter>, answer the '*?' with 'CENT'<enter>, and when the tape is through loading answer the new '*?' with '/'<enter>. The addresses (in decimal) are: Start = 28672, End = 30531, Entry = 28995.

With the cold weather setting in, it seems like a good time to take a safari in lower Africa. Get out Elephant Adventure and go on an ivory search! Notes - you can give 4-character abbreviations for the commands ('DRIN WATE' instead of 'DRINK WATER') if you're a lazy typist. Also, if you like to sleep and eat sometime and you don't want to start the adventure over at the beginning, use the 'SAVE GAME' command to save the current status of the game before stopping for a while. When you are ready to resume adventuring, use the 'LOAD GAME' command to put you right back where you left off. The program checks to see if you have disks or tape, and saves the game status accordingly.

It's 8 AM on your birthday, and your TRS-80 with DISKS comes alive on its own with a little birthday wish... No, it's not Twilight Zone, just that someone ran Message on your computer. With Message, you can define a screen full of text and have it displayed on the screen on a certain day at a certain time. You can also have a little warning tune played before the message comes up on the screen if you connect the large grey plug (that normally goes to a recorder) to an amplifier. Run Message Instructions for the full story.

Warning - The Surgeon General has found that the following program is only for the 16K TRS-80 Model I without disks:

You can make your BASIC programs unreadable by encoding them with Code It. First, load in Code It. Next, load in your BASIC program to be encoded. Now type 'CLOSE'. You will be asked to choose a number between 1 and 5. Choose one of the numbers and REMEMBER it. You can now list your encoded program (looks like garbage!) and/or save it to tape. In order to run the BASIC program, however, you must have Code It loaded into the computer. Load in your encoded BASIC program, type 'OPEN', and when you are asked for a number between 1 and 5, type in the number that you used when you 'CLOSE'd it last time. Now when you list your BASIC program it looks like BASIC!

To load Code It you must FIRST set Memory Size to 32554. Then type 'SYSTEM', answer the '*?' with 'CODEIT', and the program loads in and auto-executes. The program is in a couple pieces, so the load addresses are a little larger than you would expect in order to contain all the pieces. Here they are, anyway (in hex): Start = 41E2, End = 7FFF, Entry = 79FE.

READing problems again...

Last month I mentioned that a few of you had trouble running the Adventures because the data for the programs wasn't being READ right. On some of the Model I machines that R/S put out, you had to 'POKE 16553,128' before running a program in order for the READ statement to work. Adventures aren't the only programs that read data! You may find that other programs need the POKE in order to run correctly. Take Crolon Diversion (September 1981) for example. In line 26 it reads data to fill a string variable with a machine language sound routine. If you have one of

the flaky machines and try to run this program without the POKE, it will crash. But if you delete line 26 (the version of the program on the tape already has the sound routine imbedded in the string – no need to do it again) or type 'POKE 16553,128' before running the program, it will work.

Planets falling on my head...

Dawson Hargrove of Orlando, Florida discovered that the 'Printout on a Printer' routine in Planets over Seattle (November 1981) dumped you into the 'Setup for Another Location' routine. He suggested adding this line:

```
2695 RESTORE : GOTO 50
```

You may want to put some sort of INKEY$ routine after the other routines also, so that you can get back to the menu:

```
2240 IF INKEY$="" THEN 2240 ELSE RESTORE : GOTO 50
2530 IF INKEY$="" THEN 2530 ELSE RESTORE : GOTO 50
```

Also, the author sent in a few fixes to make the program work for the southern and eastern hemispheres:

```
46 LG=122.316 : REM LONGITUDE (NEGATIVE IF IN THE EAST)
47 LT=47.62 : REM LATITUDE (NEGATIVE IF IN THE SOUTH)
1210 IF LS<0 THEN LS=LS+24 ELSE IF LS>24 THEN LS=LS-24
1355 PRINT@128,P$(PN);"      ";
2345 IF LT<0 PRINT@963,"N              E              S              W
              N";: GOTO 2360 : REM 14 SPACES BETWEEN N & E, THEN
     13 SPACES BETWEEN E & S, S & W, AND W & N
2410 YY=43-ABS(LL)/2 : PT=33 : LI=INT(YY/3)
2475 IF LT<0 THEN X=7+PD(PN,7)/3 : GOTO 2490
```
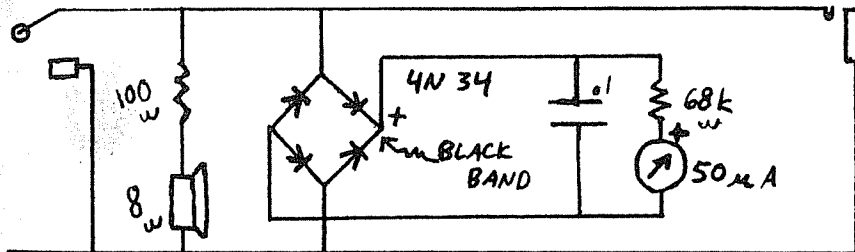
Make sure you input negative values for a southern latitude, an eastern longitude, or for hours east of Greenwich.

Egg head...

November 1981's Spelling Egg program has a small bug: It won't let you spell words that have spaces between them (ie: 'SANTA CLAUS' in line 63230). The solution is to delete those words from the data list! Not elegant, but nice.

Short circuit...

A capacitor somehow got omitted from last month's tape loading aid schematic. So here it is again:

Add another log to the fire...

How about an easy way to append one BASIC program to another from tape? The first BASIC program must have ALL of its line numbers lower than the
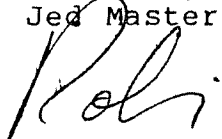
second BASIC program. Then you just follow the steps below (type them in directly from the keyboard) and you can append the second program to the first:

```
a)  PRINT PEEK(16548)        (remember this number)
b)  PRINT PEEK(16549)        (remember this number, too)
c)  CLOAD"first program"
d)  PRINT PEEK(16549)
    If step 'd' yields a value equal to or greater than 2 then:
e)   POKE 16548,PEEK(16633)-2
f)   POKE 16549,PEEK(16634)
    If step 'd' yields a value less than 2 you should:
e)   POKE 16548,PEEK(16633)+254
f)   POKE 16549,PEEK(16634)-1
g)  CLOAD"second program"
h)  POKE 16548, value from step 'a'
i)  POKE 16549, value from step 'b'
```

What the above sequence of steps does is monkey with the beginning and ending pointers to any program loaded in your computer. Now you can have a bunch of subroutines on tape, and when one is needed just append it to the program that you are writing (instead of typing the whole thing in).

It must be the holiday season, since I have a temperature of 102 degrees (that's in the ol' Fahrenheit thermometric scale). Bah Humbug! But in the interest of putting up a good front, here's wishing all of you a Merry Holiday Season and a Happy New Year (by the time you get this tape, it will probably be belated anyway).

Robin Sager
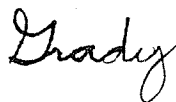Business Manager and
Jed Master

Donna Waggoner
Production Manager and
the only one that works

Tom Marazita
Program Editor,
Solderer, and Scapegoat

Grady Bell
Production, Sanitation,
and Alternate Scapegoat

Dave Lagerquist
Editor and major
mizpeller

Jed Dog
Fuzzy Vacuum