PDP-6

HARDWARE LOG

JUL 66 – 6 APR 67

SIGN AND DATE ALL ENTRIES

SRR

5 Jul 66

Hardware log started

LRR

5-July 66 Parity error

MA 120533

Mem box 3

MA 001533

Rel 120

Data 540140002573

Bug discovered:

The computer appears to be missing one very important part:

the log. The system ~~dead~~ died (~~dead~~ due to a downward-sloping power switch) & the hardware for recording this event was not present.

POWER ON 7-6-66 LYONS 0900 814.0
RAN MARGINAL CHECKS ON CORE 2&3 + PARITY
OPTION (169) OFF AT 12:07

1400 6 JUL 66 HRS = 819.8

PARITY ERROR:

PMA = 031045

PMB = 00134 — 6

CORE 1 selected

DATA in PMB = Data in CMB

PAR ODD + PARITY BOTH OFF

ERROR REALLY IN MEMORY

WITH EX amine + deposit

PUTTING DATA BACK IN WORKED

PARITY & PARITY ODD WERE BOTH ON:

APPARENTLY THE DATA WAS IN MEMORY INCORRECTLY.

SRRussell

7-6-66 1400
TTY 1 ~~Do~~ DOES NOT ECHO BACK. J.L.

VIBY NON EX-MEM

```
.R DDT

DDT=140
200/    TLNE JOBUUO    JRST 200
200G↑C

.R UN\INS4

ERROR IN JOB 2
NON EX MEM AT EXEC 3613; UUO AT USER 3164
↑C
.
```

Wuhr 7-6-66

7-7-66 POWER ON 9:05 829.5 LYONS
BIT 5 OF IOB ON ALL THE TIME. FOUND
SHORTED IO CABLE AT 1A1 END OF IO CABLE
BETWEEN THE 136 AND 630.
TTY1 TROUBLE WAS FIXED BY REPLACING 470
1K11 IN THE 630 OFF AT 11:30 J.L.
ALSO RAN BLT FOR 1 HOUR.

7-8-66 POWER ON AT 8:45 848.8 J.L
RAN BLT TIL 10:30 WHILE IOB WAS
BEING WIRED. MONITOR ON AT 10:30

7-8-66 THE 4706 MODULE FOR 1K11 IN THE 630
HAS BEEN REPAIRED + REPLACED. J.L.

Power down 7:17 PM 7-8
859, 2 Sauter

POWER UP 1450 9 JUNE
D. Pool

TTY 1 cannot send characters.
The teletype is OK — problem appears to be in the scanner.

7-9-66 6:15 PM
John Sauter

Parity ERRØR

MA = 133137 (box 3)
MB = 436000007205
CP MA = 7137

Parity ERRØR

MA = 133137 (box 3)
MB = 436000007205
CP MA = 7137

In both of the above cases Job 1 (cty) had just started running MIDAS.

8:05 PM 7-9-66

John Sauter

Power OFF 8:15 PM 7-9-66

J. Sauter

Memory parity - same as above.

21:42 CP temp = 76°

J. Sauter

System died. Non-ex mem @ 5514

22:23 7/9

John Sauter

7/10 1:30 PM. Tried to start system. Failed

John McCarthy

7/10 17:15 found DEC drop in reader backwards. Fixed system OK

Weber

7/10 15:08 Parity error

reloc 0 MA 2

PM A 100000 FAC SEL ON ??

Data 54636 0000002 ⊙

all gone system Weiler

DISS:

BEGIN Parity ERROR CP Temp = 93° !

MA = 133137 (box 3)

MB = 436000007205 ⊙

CPMA = 7137 END 7:20 PM 7-10-66

7:25 PM 7-10-66

same thing same place same data same program (midnight!)

7:27 same. This is getting frustrating.

check after system restr loc ad 476000007205 (E)

11:50 PM 7-10-66

Another exciting parity error

MA = 107511
MB = 366300007505 ⓪
box 3

CPMA 7513

Also MA = 104245
MB = 442000000665 ⓪
CPMA = 4247
box 3

temp = 80

4:47 AM 7-11-66 Power off

CP temp = 76°. J. Sauter

7-11-66 POWER ON 8:45 AM 892.6 V.A.

TTY 1 OK NOW - J.L.

The usual parity error MA=133137 MB=436000007205
CPMA 7137 Parity light on

19:38 Weber

put on Box 3 on main. try again

now no error ? to reproduce the condition, load MIPAS into the top 22k of memory and let it assemble TEKO. J.L.

DTA1 is doing a lot of swinging for each record. DTA2 is ok.

5:30 AM 7-12-66 J. Sauter

~~7~~ 6:20 AM 7-12-66 913.65 hrs

Power OFF

CP Temp = 78°

no trouble with memory since we put Box 3 in maintat. It is still there.

John Sauter

7:50 AM 7-12-66 913.7 J.A.

P. ON

Replaced Sense amp for BIT 3 in Core 3 J.L.

ADJUSTED DTA 2 TRANSPORT STOP TIME. HAD MACHINE FOR 1.5 HRS.

Power off 4:40 7-13-66 on J.N.

7-13- POWER ON 9:00 AM 934.4 J.L.

RAN BLT 20 MIN. TS MAIN 10 MIN.

RAN CERT (DECTape) ON DTA2 (OK!)

USED SYSTEM TOTAL OF 1 HR

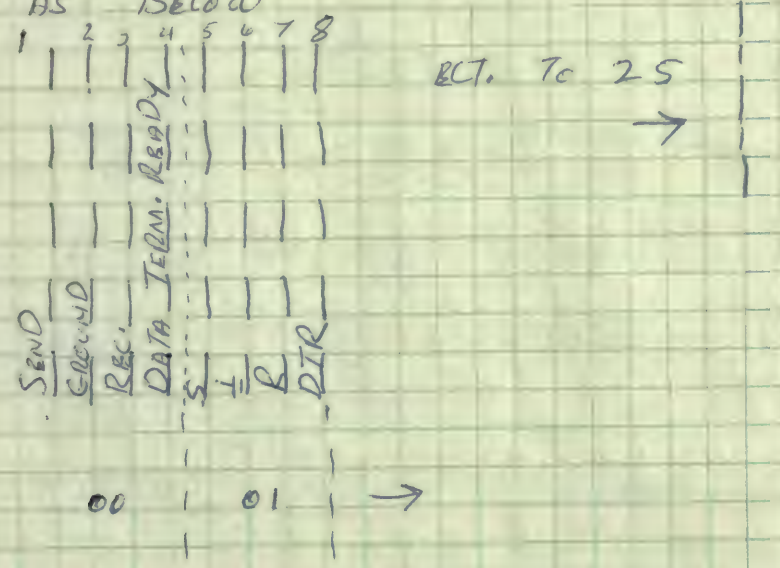
7-13. 2:30PM PARITY ERR (CORE 3) J.L.

PARITY BIT OFF P.B = 305040 002657
ADD = 117127

7-13 1000 PM WE NOW HAVE TWO (2) OPERATING DATA LINES 910-373-1749 + 910-373-1776 (NO THANKS TO DEC) I HAD TO REWIRE THE DATAPHONE CONNECTOR BLOCK (SEE BS) TO MAKE THEM WORK.
HAVE MODIFIED ALL 8 CONNECTION SETS TO MAKE IT EASY TO ATTACH MORE AS FOLLOWS

THE BLOCK IS MADE IN GROUPS OF FOUR LINES

AS BELOW



SEND is RED wire FROM PIN #2 OF DATASET
SIGNAL GROUND is BLACK WIRE FROM PIN #7 OF DATASET
REC IS GREEN WIRE FROM " #3 " "
DATA TERM. READY IS WHITE WIRE " " #20 " "

OVER →

CONTINO

AS THE DATASET I/O LEVELS AND PULSES ARE BIPOLAR

EXAMP:

ON OR A "ONE" STATE IS +5 → 25 VDC

OFF " " ZERO " " −5 → 25 VDC

I MADE A OHMIC DIVIDER FROM PLUS 10VDC OF THE 630

THRU A GROUP OF SWITCHES I ADDED BELOW THE PATCH PANEL AND SENT THIS TO THE DTR TERM. OF ALL DATASETS TO TURN THEM ON AT WILL.

RANDY

1-14-66 POWER ON 9:00 850.7 J. LYONS

RAN TS MAINS 10 MIN.

RAN SET 10 MIN.

TOOK MARGINS ON 136 (DOCTORS)

CHECKED DELAYS ON 1B (DOCTORS)

25 MS. DELAY WAS 45 MS. RESET TO 35 MS.

225 MS. DELAY WAS 230 MS. RESET TO 164 MS

300 MS. DELAY WAS 345 MS. RESET TO 300 MS

→ THIS DELAY SHOULD BE SET TO APPROX. 180 MS.

RELEASED MACHINE TO USERS AT 10:30 AM.

POWERON 7-15-66 - 967.9 J.A.

CONS INST. FAILS INTERMITTANTLY. (CONS T 3)
OUTPUT OF PA (INSY) LO AMPLITUDE (LESS THAN 2V)
INPUT TO PIN X RINGS AND IS TOO NARROW.

EXAMINE WHILE RUNNING CAUSES STALL CONDITION
IN KEY CYCLE IF THE ADDRESS BEING EXAMINED
HAS BIT 25 OR HIGHER BIT. (WHILE IN USER MODE)

Parity error
MA 117127
Data 305040002657
parity on
box 3 cpma 5127.
Weiler

PARITY ERROR

MA=031125 (Box 1)
MB=256003000000 Parity=1
CPMA=001125
RELOC=030 (user mode)

7-15-66 0210

The '35 (ctr) is out of paper. We have been using the back of an old listing for some time, but now even that is gone.

J. Sauter

7-16-66 9:00 POWER ON 989.6

~~POWER OFF~~ JA.

CONS 1,15 INSTRUCTION LOOSES AGAIN!!

LH(MB) = 002671
LH AR = 002672
} CONS CNT RH = 0 ⇒ TRAP THE SOB.

LH(MQ) = 011446

INSTR = 257
AC = 1
IR = 15

MEM = 232057

AC15 = LH(002671)
AC1 = 11446
AC2 = 0

POWER 10:05

Parity on 54652
Data 05770712665C
parity bit on temp 80
box 0 15:37 7-16-66
repeat parity error in box 0 all different location
zero core box 0 still gives parity error
Bit 25 always on on read

5:10 PM 7-16-66
The system seems very sick.
We will try the diagnostics
BLIT TEST Will not READ IN!

John Sauter

8:35 PM 7-16-66 Power ON
Non-ex MEM trying to type date into system. Ran with Disable Memory
MA = 020754
PC = same CP TEMP = 76°
BLIT wont read in.
Power OFF

9-16-66 9.30 PM

I HAVE BEEN LOOKING AT THE SIC SIX AND TRYING TO SEE WHAT IS WRONG

FIRST:

I GOT A PARITY ERROR BUT IT WAS NOT BAD PARITY

I LOADED JRST.+1 IN TO LOC 20 THIS IS COREØ LOC Ø. THE CORE BOX WROTE 254000000021 WHICH IS WHAT I PUT THERE, CORE FINISHED THE WRITE CYCLE AND WHEN IT WAS DONE THE PARITY BOX SAID THE FOLLOWING

PARITY BIT WAS AN ONE (THAT SEMED RIGHT FOR THEIR WAS ONLY 6 BITS TO THE WORD BUT IT ALSO COMPLAINED OF BAD PARITY. THIS SEEMS ODD BECAUSE THE CMB = PMB, AND THEY WERE RIGHT

FURTHERMORE UPON DOING AN EXAMINE OF LOC 20 IT VERIFIED THAT CORE Ø LOC Ø (MAS=20) CONTAINED 254 - - - - - - - 21 WHY?

BAD PARITY!

THE SECOND READOUT OF THE SAME LOC SHOWED THE PARITY BIT WAS NEEDED AND IT WAS GOOD (NO ERROR)

THE THIRD TIME OF SAME GAVE ERROR

BUT THE CONTENTS OF THE ABOVE CELL HAD NOT CHANGED - - - - RANDY

7-17-66 -- 0230

RE: PREVIOUS NOTES.

Observed that bugs go away when 163 #1 (core 0) is in P2 mode, come back when core 0 in MULTI.

THEOREM: Core 0 forgets pulses when in MULTI mode, probably in the CMC AWRQ ← 0 ⇒ [10 NS DLY] ⇒ CMC RQ SYNC ← 1 circuit.

Proof: Exchange relevant modules between core 0 and core 1; namely, 1E21, 1D18, ~~1H32~~, 1D20; no great effect.

REVISION OF THM: CMC AW RQ ← 0 is not being generated sometimes. We have no drings of this logic - as it involves the memory hold mod.

DAMN R. CLEMENTS!!

Drugs should come with machines.

D.P.

7-17-66 0643 1003.5 HR.

Power off. - D.P.

2:35 PM 7-17-66

Power ON Ran Dectape test.

on DTA7 (exdata)

All memories in P2 and Run.

CP TEMP = 70°

no complaints for DTA7.

Ran on DTA5. Runs Ok.

Loaded Monitor (3:10 PM)

System died 5:40 PM 7-17-66

PC change was enabled (?)

error flag was up in the parity box and the stop switch was on but the machine was still doing something.

PI 2 in progress (and 7).

J. Sauter

System died 6:15 PM 7-17-66

Non Ex Mem, CPA ill op.
PI 2 in progress
monitor will not restart at 140

System died 7:02 PM 7-17-66

PC CHNG ENABLED
AROV ENABLED
PI 2 active (+7)

7-17-66 1915
PC CHG ENB and AR OF ENB come on mysteriously, causing system lockup.

D.P.

7:58 PM 7-17-66 Power OFF
CP TEMP = 75°

2052 -- PWR ON, 1008.9 HRS

D.P.

1016.0 4:AM 7-18

Parity error

CP MA = 401 72
PB MA = 172170

[illegible] AM [illegible] TAU [illegible] SMA.N. & RETOK
TRIED USING ALL MEM. [illegible] MULTI. TAU OK.

USED MACHINE TILL 10:00

7-19 6:15 A.M.

```
ERROR IN JOB 2
NON EX MEM AT EXEC 13772; UUO AT USER 672
↑C

.

.
.
.
```

```
*R ED 3

.↑C

.R EDITOR


*S5,PROG2

*P1015
01015   PT20 (CSETQ NUM(PLUS 1 NUM))

*I1020,5
01020   (SETQ(\ VOR(INTERN(MAKNAM(CONS

ERROR IN JOB 2
NON EX MEM AT EXEC 13772; UUO AT USER 672
↑C

.SYSTEM RELOADER AT THIS TIME............


↑C

.R EDITOR
JOB 1 INITIALIZED
MONITOR IS RCC 2.4M
19-JUL-66
620:49.27


*S5,PROG2
```

things ran fine past here

```
*P1015
01015   PT20 (CSETQ NUM(PLUS 1 NUM))

*I1020,5
```

Everything ran O.K. after I reloaded the system.

9:00AM 7-19

Power off meter = 1043.4

7-19 POWER ON (J.L.) 9:15 1043.4

REMOVED 150-Ω TERMINATING RESISTOR ON 1H2Y TO DECREASE LOADING ON CONST3 PA.

CONS TEST WAS FAILING DUE TO LO AMPLITUDE PULSE (2.5V) OF CONS T3. THE FUNCTION OF THIS SIG. IS TO SET THE TRAP FLAG AND INITIATE ST3.

THE OVERSHOOT NOW PRESENT CAUSES NO PROBLEMS.

SYSTEM OUT OF INTERLEAVE FOR D. POOLE — J.L.

7-20-66 0125 PWR OFF P.P.

7-20-66 0330 Power on P.P.

7-20-66 0440 Power off

7-30-66 0915 POWER ON J.L. 1064.8

INSTALLED 1664 (NO INTERLEAVE) MODULES FOR 167 (IN PO SLOTS)

INTERCHANGED 4706 MODULES FOR TTY0 & TTY1

TTY 0 & 1 BOTH OK NOW.

RAN HI SPEED MEM. CHKRBD FOR 20 MIN. (OK)

RAN BLT FOR 1/2 HR. (NO BURPS!)

RETURNED MACHINE TO USERS AT 10:40

7-21-66 0900 POWER ON J. Lyons 1078.8
PARITY ERRORS (CORE 1) DROPPING BIT 33. Replaced
SENSE AMP. OK NOW
~~THE~~ THE ADDRESS LINES AND ~~DATA~~ DATA LINES (MEM BUS)
IS NOW WORKING FROM 167 TO CORE 3,261.
FOUND 2 1665 MODULES HAD BAD SOLDER CONNECTIONS
FROM THE REAR SOCKET TO PC WIRING. BOTH CARDS
ARE NOW REPAIRED.

7-22-66 0910 POWER ON J.L. 1095.4

7-23-66 1552 Run on. - D.P.

7-23-66 1558 Persistent
parity error .. loc. 46400.

7-24-66 0130 VIDEO WORKS!
POWER OFF.
SAR

7-24-66 10:00

CORE 1 SOLID PARITY ERRORS !!
RUNS FINE IN OTHER CORE BOXES

~~TOO CAN GET TS~~

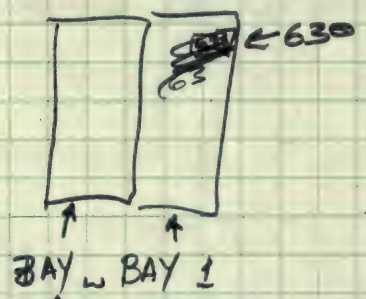
POWER OFF 1215

1440 24 JUL 66 POWER ON

INVESTIGATED DATA-SET TROUBLES.

FOUND RECIEVER BOARD FOR UNIT 1
BAD REPLACED 4706 AT 630 1K12

NOTE BAY NUMBERING ON 630 BAY 0



NOTE THE LEFTMOST IS BAY
(PRONOUNCED BAY (BLANK) IF NECESSARY)

WE NOW HAY YET ANOTHER NUMBERING SYSTEM:
IT ~~STARTS WIT~~ GOES

(BLANK), 1, 2 ....

ANYWAY OTHER THAN BAD 4706 TTY'S
SEEM TO WORK and external TTY'S seems
to work

SRR

1720 24 JUL 66

LINE PATCH 1 appears to drop bits
randomly so it is disconnected right now
TWX and TWX' lines work all right
1776 was in use for about 1 hr with no
trouble SRR

1-25-66 POWER ON 1132.6 J.L.

PARITY ERRORS IN CORE 1. WE ARE DROPPING THE RITE HALF OF WORD. AFTER MACHINE WARMS UP CORE 1 IS OK. LOOKS LIKE COLD PROBLEM. WILL LOOK TOMORROW.

0110 26 Jan 66

AIR CONDITIONING JUST STARTED DUMPING ~~#~~ WARM (NOT COOL, BUT WARM) AIR INTO COMPUTER ROOM. CHECK THE HAYWIRE ON THE DAMPERS IN BACK. TEMP = 89°

LRR

1-26-66 PWR ON. TEMP 80° 1148.7 J.L

CORE 1 DROPPING HALF WORDS. (EITHER HALF) AT RANDOM ADDRESSES.
AFTER MODULE SWAPPING THIS TROUBLE WENT AWAY. SEE NOTE. PICKED UP BIT 21 WHEN THE LEFT HALF OF WORD WAS ONES. REPLACED ~~[illegible]~~ INHIBIT DRIVER FOR THIS BIT. OK NOW.

RAN MATRIXES ON ALL 4 MEM. CAR.

ALL CRIB MODULES BACK IN THEIR ORIG LOCATIONS.

28 Jul 66

~~Printer turns off. [illegible] and~~
Printer hangs up ~~printer up~~
Pushing stop turns on back stop and ~~start~~ and the printer hangs up. only Restart at the end will un hang it.

7-27- POWER ON 9:00 1172.1 J.L.

RAN BLT FOR 1 HR 40 MIN. OK!

INSTALLED PRINTER & LOGIC - RAN DIAGNOSTIC OK!
(IT LIVES!)

the following differences exist between TTY and LPT

TTY	LPT
single quote	right quote
↑	circumflex
\	tilde
@	left quote
←	underline

7-27 2330

ADJUSTED TRACTOR INDEX ON UPPER AND LOWER UNITS
THEY NOW TRACK PROPERLY AND YOU CAN GET PROPER
WEB TENSION & FORM TENSION RUN TIME 171.1
RANDY

P.S BILL W. MADE UP
NEW VERTICAL FORMAT TAPE

7-28-66 POWER STILL ON. 1194.3

REPLACED 4 CABINET FILTERS.

~~Should~~

7-29 INVESTIGATED NON-EXIST MEM PROB. WHEN
CORE 0 IS IN MULTI BLT REVEALS THAT
PROBLEM VISUALLY. INTERCHANGED CAP MODULES
TO MAKE CORE 0 BE ADDRESSED AS CORE 1 &
VICE VERSA. TROUBLE STILL STAYS IN ORIG. CORE 0
CABINET. IT NOW STOPS ON NON EXIST MEM WITH
P2 ACTIVE ON. WILL LOOK AGAIN MONDAY.

29 Jul 66 2000

Printer hangs up.

Pushing STOP and START turns on both STOP

ONLY Reset on the end will clear it

~~This Hang up is similar to~~

The reset makes the machine go again, but a character is lost.

It usually happens at the same place in a file.

LTR

2100

System Reloaded & Power off ~~still~~ bug went away.

Tired System.

MI bit 9 appears to have a
~~[illegible]~~ bad light driver.

8-1-66 POWER ON 1272.8
THE 6113'S (1H24) WERE EXCHANGED BETWEEN
CORE 0 & CORE 1. ALL 4 CORES NOW RUN
IN MULTI MODE.

8-1-66 LPT. IS BAD (LOW SPEED DRIVE CLUTCH
BELT BROKE) IT IS BADLY FRAYED AND SPLIT
1.00 PM IT IS THE BELT THAT DRIVE THE PAPER
FEED (THE CLUTCH IS THAT BIG BRASS
FLYWHEEL ON THE LEFT SIDE

RANDY

8-1-66 2230
Core Ø died mysteriously---
MA, RB, WR, INH = Ø (RUN mode), RS = 1.
Repeated twice. Placed in P2
briefly; didn't happen. Placed in
MULTI, MAINT; didn't happen
D. Rook

Parity error

Box 3 MA 76400

Dat 2 60700000000

CPU MA 400

continuous parity errors box 1

MA 40000

Dat 7 10600000000 boxes on P2 does not stop

CPU MA 40000

box 1 loses lower ½ word

bits 22 — 28 and 30-31 if any on and bit 21 on ½ word goes away

stop 70 ~~boxes on P2 does not stop~~

W. Weber
J. Allen

8-2-66 Power on. 1294.9

8-2-66 1205

Memory stop doesn't work

LRR

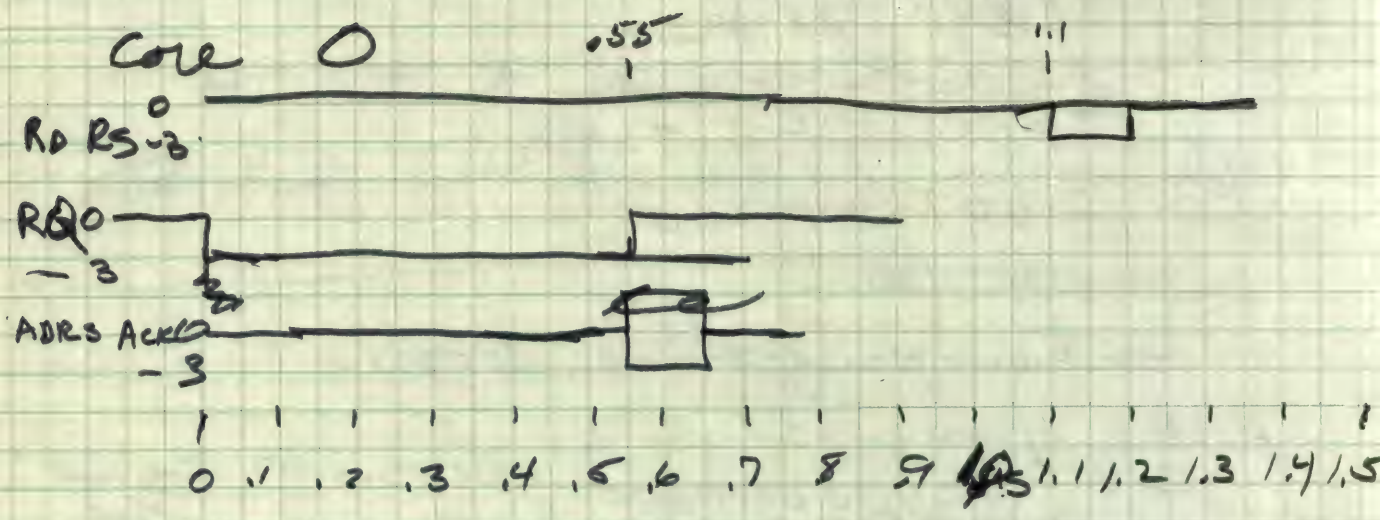
8-3-66 1319.3

Replaced IMAST in 66. Pad K not come up to GND. To (1) → MC STOP.

Ran MARGINS IN CORE 0 (on MULTI) To FIND MULTI PROBLEM. FOUND CIRCUIT ON 6110 IN 1434 KENRAD OUT AT +12 ON B LINE. Replaced

8-2-66 12 05 MEM Timing

Core 0



core in Run

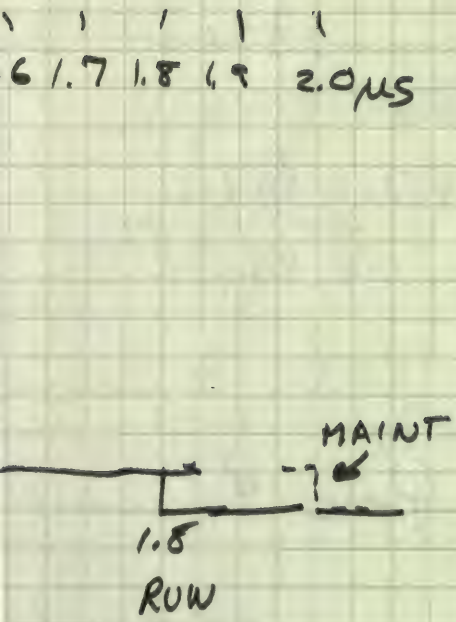
~~in ard~~
~~AW Rec.~~
~~GR pin 16 66~~

AW Rec
1664
pin GR

core in multi

RQ → ADRS AC = 550ns
RQ → RD RS = 1.1 μs
RQ → AW Rec (redy for next cycle) = 1.8 μs

} all are 200ns longer in MAINT


6 1.7 1.8 1.9 2.0μs
MAINT
1.8
RUN

8-3-66 J.L. 1324.2

PARITY ERROR CORE 1 LOC. 075040

PARITY BIT OFF, CONTENTS = 326300003040

8-4-66 JRR

POWER OFF - 0335

8-4-66 J.L. PWR ON. 1336.0

ADDRESS STOP DID NOT WORK AGAIN!

TRACED TROUBLE TO INTERMITTANT Delay Module (1316) IN 1M16. Replaced Module. OK AGAIN! (?)

8-4-66 1815 parity error
loc 140000 core 4
contents 0

8/5/66 WMW POWER ON 1352.9

8-5 J.L PWR ON 1354.0

TEMP 60°.

CORE 0 WAS HANGING WHEN AN RQ OFF, RDF, WTB, AND SYNC ON. + ADDRESS FINDING WORK 27.74.5 TROUBLE LEFT AS CORE WARMED UP TO 65°.

CORE 1 WAS DROPPING HALFWORDS (PARITY). AREA AROUND

1K5 SEEMS SENSITIVE TO MAKING THIS TROUBLE LEAVE EXTRA ON I COULD NOT FORCE TROUBLE TO COME BACK AGAIN BY PULLING ON MODULES IN THIS AREA. (OR TRYING)

8-6-66

The CTY will occasionally drop a character (doesn't even print a null in its place)

John Sauter

Map of interleave switches:

There are eleven (11) switches, located as follows

1) CP ~~rack~~ BAY 2 level L (front)
2) FAST MEMORY top front
3) CORE BOX 0 ~~Box~~ BAY 1 level E left front
4) " " 1 " " " "
5) " " 2 " " " "
6) " " 3 " " " "
7) CORE BOX 0 rear BAY 1 Behind the 1035's
8) CORE BOX 1 rear BAY 1 Behind the 1031's
9) " " 2 " " " "
10) " " 3 " " " "
11) 167 data channel level B front

caution: the switches in the rear of the core boxes are unlabeled.

now in interlane

1500 6 AUG 66

DTA 1 L Hub SCRAPES ON MOUNTING PLATE

LRR

Moved Hub out a hair - work OK

LRR

1800 6 Aug 66

TTY 3 doesn't work
locked keyboard

OK NOW. V.L.

6 Aug 66 1830
DTA6 out of adjustment ~~[illegible]~~
Lens slack in tape

Bill Oliver

0230 7 Aug 66

~~[illegible]~~ the monitor behaved strangely.
Ran dectape test. It complained about tape 60 a scratch type. Different complaints on different drives. ~~[illegible]~~ Mostly error 3. Rewriting timing and mark and blockmarks made the trouble almost go away.
I suspect that both that tape and the dectape logic are marginal

and together they cause trouble, or else that there is a temprature problem It got noticeably warmer as the tests progressed.

ARR

0236 7 Aug 66
Power off ARR

0955 7 Aug 66
Power on J. Sauter

1750 7 Aug 66
Power off ARR

0912 8th Aug 66 1408.0
Power on R Dover

1810 9 Aug 66
LINE PATCH # (TTY 1)
does not recien teletype charates very well. it drops them.
ARR.

0900 9th Aug 66 01426.4

Power On R Duran

J.L. Replaced burnt pwr line wire in 166

Ran PT 1-2-4-5 (TS MIN) Inst Test. 15 min. OK

Ran BLT 15 min OK

Ran DecTape Test unit 6 (EXDATA & DCTEST) OK

Ran Mem chkrbd OK

System up 10:36

8-9-66 16:45

J. Hearn says one of TWX lines drops random chs.

Bill Werker

8-9-66 THE LPT IS NOW UP BUT
24:00 SEE RANDY BEFORE USEING IT
IF I'M NOT HERE YOU MUST TAKE
YOUR CHANCES WITH IT
I HAVE HAVE MADE A BELT?
IT MIGHT WORK 4 HOURS OR 4 MONTHS
IT ISN'T CLEAR YET.

RANDY

MORE →

THERE WAS A BUG IN THE LIST

203:00, 26-JUL-67

```
.K

SYSTEM REINITIALIZED AT 2359:00, 25-JUL-67


CORE PARITY ERROR, LOCATION 000000066115  OPND = 775777046123
PC = 750000023052  INSTR = 246040777773
DATE = 000636551005  TIME = 0000:47


CORE PARITY ERROR, LOCATION 000000066115  OPND = 775777046123
PC = 750000023052  INSTR = 246040777773
DATE = 000636551006  TIME = 0001:58


CORE PARITY ERROR, LOCATION 000000053715  OPND = 577777033716
PC = 350000021060  INSTR = 346540001134
DATE = 000636551013  TIME = 0007:02


CORE PARITY ERROR, LOCATION 000000066115  OPND = 375776046123
PC = 350000021417  INSTR = 322340001444
DATE = 000636551014  TIME = 0007:21


SYSTEM REINITIALIZED AT 0008:00, 26-JUL-67
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CORE PARITY ERROR, LOCATION 000000074335 OPND = 777773054336
PC = 350000021432 INSTR = 322340001457
DATE = 000636551047 TIME = 0035:07

Jul 26, 1967 2:30AM

When I came to work on PDP-6, the ~~[illegible]~~ messages on this page to dotted line had been generated. the system was not working, and core Ø had "error" light on, which went off after I pushed reset button. After I restarted at 143, I got the last message on this page, and the system was still unresponsive. I then tried restarting by loading 16K dedump etc. and got nowhere. I finally loaded the sim loader, 16K dedump, etc and again got nowhere. The "error" light is off on core Ø, but no amount of pushing reset buttons will turn off the parity light off

Richard Seely

SYSTEM RESTARTED AT 0039:00, 26-JUL-67

SYSTEM REINITIALIZED AT 0043:00, 26-JUL-67

CORE PARITY ERROR, LOCATION INDETERMINATE
PC = 750000000002 INSTR = 550640000013
DATE = 000636551110 TIME = 0103:26

CORE PARITY ERROR, LOCATION 000000066175 OPND = 010252046204
PC = 750000022730 INSTR = 246040777773
DATE = 000636551130 TIME = 0120:22

CORE PARITY ERROR, LOCATION 000000070515 OPND = 050512050511
PC = 750000025265 INSTR = 322200005305
DATE = 000636551177 TIME = 0158:28

SYSTEM RESTARTED AT 0203:00, 26-JUL-67

THERE WAS A BUG IN THE LPT

0900 9th Aug66 01426.4

MORE —/

THERE WAS A BUG IN THE LPT
BESIDES THE BROKEN BELT.
THE CODE WHEEL [CHAN. (1)] STR.
WAS SHORTED OUT IN THE CABLE ASSM.
IT WAS THUS IMPOSSIBLE TO PRINT
ANYTHING AS THE TIMEING GENERATOR
WAS NOT BEEN GRONKED.
THERE WAS AN ATEMPTED BY ANELEX
TO SHIELD SOME TW. WIRE IN A CABLE
BY SOLDERING SHIELD SLEEVING ON
BUT THE HEAT OF DOING IT BROKE
THE INSULATON DOWN
GOD DAMMED ANELEX AND THEIR Q.C

8-10 POWER ON J.L. 1444.9

8/10 TTY5 doesn't see 'Shift' on numerics
and some other keys
J. Sauter

8-11 PWR ON J.L. 1463.0
RESTORED INTERLEAVE ON 1665 MODULES FOR 167

8 pm Power on 1473.5
RDoran

8-11 2145 System giving mysterious nasty messages. Reloaded several times. No help.

RAN BLT - ok
RAN CONS. gave error message
(enclosed)
RAN UINS3 - ok
RAN UINS4 - ok
RAN UINS5 under TS - ok

John Santos

8-12 PWR ON 1486. J.L. - BW

BELT FOR PRINTER ARRIVED & WAS INSTALLED. THE 167 WOULD NOT ADDRESS ~~CORE~~ EVEN CORE LOCATIONS. THE 1 & 0 STATES OF BIT 35 WERE NOT FURNISHED TO THE 166 & MODULES. WE FOUND THEY WERE TIED TO BIT 27. THEY WERE MOVED TO MA BIT 35. THE 167 NOW TALKS TO INTERLEAVED MEM. OK.

8-12 6:30 PM
PUT NEW 13" RIBBON ON LPT
SHOULD SOLVE MISSING LEFT COLUM
ANELEX # 87728 IS THE RIBBON
WE USE FROM NOW ON

RANDY

8-13 3:00 AM
Line Printer was not recieving "2" bit from controller. Upon wiggling wires going into 50-pin Amphenol plug, the problem went away & I could not get it to come back.

Phil

8-13 --- 2145
Fixed LPT bug, whereby first char. after EONO is printed as after a DELETE. It was another C.F.H.S. ~~C.L.Q.~~ DAMN DEC DESIGN DEFICIENCY!!
SEE ~~646-10~~ 646-10-7.

D. Poole

5:10 8-14-66

TTY 7 seems to drop rubouts

Orlock

8-15 J.L. 1550

RIM LOADER WOULD NOT LOAD PAPER TAPE

LOC. 26 = 71040 — BIT 12 NOT GETTING

BIT12

TO CORE. RESEATED 6205AIN 2DE19. OK NOW.

8-16 1800

DTA 1 Bounces a lot

LRR

8-16 2052

System died with parity error in

Mem Loc 100050_8 PI 7 ~~active~~ in Progress

Did following:

1- Instr. Stop

~~[illegible]~~ 2- Clr Error - Parity Chkr

3- Restart - " "

Then tried action A in Operating Manual with no luck

tried " B no luck but PI 7 went off this time

tried " C no luck this time ParEr. @ Loc 44_8

tried " D Parity again

I. Sobel

8-17 ADJUSTED 'LONG' STOP TIME ON DTA 1 1594.7

J.L.

8-17-66 1325

DTA 4 flopper tape
around and bounces

HRR

8-18 1618.0 J.L

RUNNING TS MAIN (PT 1, 2, 4 & 5) 9:30AM

8-18 SYSTEM UP 11:25AM

8-18 LPT IS FEELING PRETTY BAD
WHEN YOU TRY TO DO A LISTING
AND ITS ON LINE THERE'S A 50-50
CHANCE THAT IT WILL IGNORE YOU
AND DO NOTHING IN THAT CASE
YOU HIT START → STOP → MANUAL PRINT
→ + RESET IN THAT ORDER 15 TIMES
TO GET IT TO LISTEN TO YOU AND
START PRINTING, IT WILL RUN FOR
ABOUT 2-3 PAGES AND STOP

RANDY

8-18- RAN PRINTER FOR 20 MINS. OK J.L.

2040 8/18/66
"STOP" command to DTA1
appears to not work occasionally.
it sometimes free-wheels for a while.
(happens under 2.4, 2.6 & DECDUMP)
John Sauter

18 AUG 66 2100
TTY5 prints (for * occasionally
They are adjacent on the print wheel
and they occasionally) * is
printed, so it looks like the
mechanism needs oil or something
HRR

8-18 1030PM AIR CONDITIONING WANTS TO WARM US
NOW, TEMP IS 81, WHAT IS
GOING ON —

DTA2 hum up would not turn

Nick

Len Printer still has some
trouble as last night.
Bill Wiecke

8-19 0945 PWR UP 01637.8
WPM

MONITOR RUNS LPT OK (AT THIS TIME) BUT PRINTER DIAGNOSTIC TYPES ~~NO DONE FLAG~~ "NO DONE FLAG FROM LPT" AFTER DOING CARR. RETURN & FORM FEED. (PROGRAM BUG?)

8-19
3:00 Printer entered loop mode 87°
Ok at 85 earlier

Well
TTY5 doesnt seem to work OK NOW J.L.
Weir

August 21 11:45. AM
Line printer showing same problems as described under 8-18 by Randy.
John Sauter

8-21 CORE TWO (2) HUNG ARG "0"
RANDY

8-23-66 PWR ON 1722.6 J.L.

FOUND PRINTER WOULD NOT COMPLETE PRINT OF A LINE OF ALL PRINTABLE CHARACTERS, IT WOULD CONSISTANLY FAIL TO PRINT LOWER CASE P, R & Q REGARDLESS OF THEIR POSITION ON THE PRINTED LINE. FOUND THAT, DUE TO MISALIGNMENT OF THE LAMP

ASSEMLY FOR THE 8 CHANNEL CODE WHEEL, THREE PULSES OF CHANNEL ONE PHOTO DIODE WERE LESS THAN HALF THE AMPLITUDE OF THE REST OF THE PULSES. REALIGNING THE LAMP ASSY. BROUGHT EQUAL AMPLITUDE OF THE 128 PULSES.

8-24-66 PWR STILL ON 1749

8-25-66 PWR STILL ON 9:30AM 1771.6

8-25 16:40 J.L. 1779.0

LOADED OLD MONITOR (2.4M) AND RAN VINS48

VINS5 15 MIN. OK

RAN TS MAIN 15 MIN OK

RAN BLT 25 MIN OK

8-26 0920 J.L 1795.0

RAN DECTAPE TEST EX DATA OK DC TEST OK

DLY TIMES 36.0, 184, 290 MS.

CONS TEST 10MIN. OK

MEMORY TEST (FAST) OK 15MIN.

Replaced ALL AIR FILTERS

LUBED TTY 7

8-29 0920 PWR ON 1861.6

8-30 0915 PWR ON J.L. 1884.0

INSTALLED PARITY IND. PANEL IN CORE 0

Aug 30

Tape drive 1 seems bad. Seems to be very weak motor.

Field.

~~Sector~~ CPU hung on interesting light F6A pushing stop-continue flips the world

1925 30 Aug 66

SF5A lamp on CP is always on. bad driver?

ARR

CP hung ~~In User Mode PT cycle~~ at various places. See picture for one example. It appears that ~~no~~ RD RS is not getting through to CP from some (maybe all) memories happened 3 ~~times~~

ARR

8-31-66

TTY6 control key and altmode stuck

OK NOW J.L.

Weik

0300 31 ~~Hanc~~ Aug 66

Stop on ERROR Switch on parity box has no effect

TTY5 Prints wrong character

* as (or Q

etc.

N as K

N as _

mostly at beginning of line

LRR

---

31 Aug 1966 ~1600

PARITY ERROR Location 025152.

(examine switch showed it really is there. Deposit ZERO cured it)

John Sauter

31 Aug 1966 1630

System doing funney things to dec tapes. It hangs in chan 7 at the end of a record. pushing a character on the console TTY restarts it.

Ran DECTAPE TEST.

UTEST ok
DCTEST ok
EXALL ok
EXDATA ok
} unit 4

EXDATA ok unit 3
UTEST ok unit 6

Got error 72 from dectape test
claims it is a spurious interrupt
didn't happ

~~Rend~~ Found IOBuss terminator cards pulled — system OK
Replaced them - no troubles

GRR

1930 1 Sep 66

Teletype receiver #0 drops bits when receiving from datafone

typed recieved typed recieved

3 → ; 8 → =

A R Russell

2335 3 Sep 66

Found cable from parity box to switches was unplugged subtly. Fixed it and now stop on parity works.

~~the connector can be b~~ the short Amphenol connector that plugs into the back of the switch panel can be plugged in shifted off by 1/2 a pin. It is invisible from the back and the side, and the top and the bottom is invisible Amphenol made a connector that can be pulugged in wrong, and it was

~~the are~~ were also some random hang-up of the system in F6A an IF1A that ~~appeared~~ to be RD RS getting lost between ~~on the w~~ somewhere between Memories and the CP. This bug has not stood still yet.

LRR

0405 5 Sep 66

CP hung waiting for Rd rs from core 0. It had gotten the instruction from 44 (core 0) on a seq lk but it had not gotten out of the Mem Ctl sub-outine.

IF1A was lit

LRR

0420 5 Sep 66

AGAIN LRR

0421 temperature rising again only in core 1, core 0, core 3 core 2 - it seems to want a hot machine

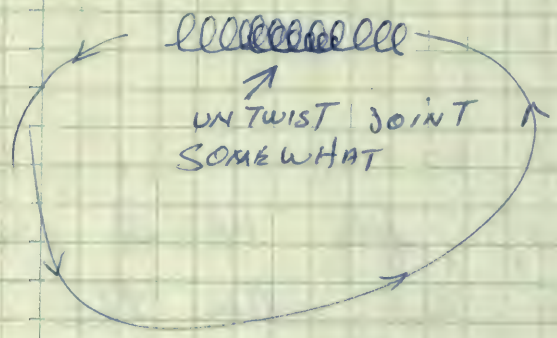
9-6-66 PWRON. 0915 J.L. 2015-3

RAN TS MAIN PT. 1,2,4&5 1/2 HR. OK
RAN BLT 1 HR. OK

Replaced LAMP DRIVER FOR SFSA INDICATOR.

ADJUSTED COL 37 & 62 ON Angler PRINTER
(WERE MAKING VERTICAL PERIODS!)

9-6-66 23:37 EXPANDED THE HUB SPRING ON DTA1.
THE REELS DON'T SLIP NOW SEE BELOW



RANDY

0300 9-7-66

PUSHED IN ALL MB CONTROL AND MA CONNECTORS BETWEEN CORE 0 and CP IN HOPE OF SCARING THE NO RDRS BUG NO EVIDENCE RESULTED.

ARR

0900 9-7-66 J.L. PWR ON 2026.1

LOOKING FOR RDRS BUG. FOUND COLD SOLDER JOINT ON 1664 BOARD (1BC1 IN 162) PINRY. ALL SOLDER JOINTS LOOKED GOOD ON RDRS LINE. CHECKED BOARDS IN 162 - 169 & CORE FOR THIS SIGNAL.

9-8-66 0200

RDRS BUG or something like it
also PARITY ERRORS, but machine stopped
even though the "STOP on ERR" sw
was in the GO position.
RESTART worked as if it was
stopped -

??

TTY5 GARBAGES CHARACTERS ON OUTPUT.

Printer pulled ribbon off lower
roll.

RRR

ARAM PUT RIBBON BACK ON LOWER ROLL.

DTA1 FULL OF STATIC OR SOMETHING.
FORTRAN WOULDN'T READ THE TAPE.

DTA4 SQUEEKS

RANDY FIXED SPRING ON DTA1. NOW TRY
TO GET A REEL OFF.

9-9-66 0230

TTY5 doesn't work
keyboard locked.

OK J.L

RRR

9-8-66 1945

NO RDRS AGAIN !

MC RD

IF1A

John Sauter

9-9-66 0420

Printer printing . for blank
and o for bland (see sample)
it is warm.

SRR

9-9-66 0445

Printer hangs
RESET will unhang it
start it and it hangs again
~~this~~ this time STOP will work
and manual print will clear it
START STOP MAN PRINT ~~works~~
for several times makes it work
again.

SRR

#446 9-9-66

Printer pulled ribbon off bottom roller.

HRR

0515 9 Sep 66

the hang up in the printer (see 445 today) seems peculiar to F4's multidrying code. a program that gets stopped and restarted doesn't seem to hang up the printer

More spurious characters

HRR

10-Sep 66

TTY1 has lousy chs

they ~~the~~ type wrong + system hears them wrong (system hears different than those printed too)

Weber

1600 10 Sep 66

Found printer bug — the collar that holds the photo-diode assembly was still loose it moves slowly. When it is out of adjustment, prints occasionally as P ets. ~~It does not it~~. It is not possible to tighten down the holding clamps because of aneley's clever construction.

SRR

9-10-66 1500

Camera is still writing bad parity words in core

LOCS 035020
200000

SD.

9-10-66

The problem where TTY 1 sends bad characters appears to be in the 630 because any TTY which is plugged to Line Patch Ø1 does it.

Phil Petit

1707 10 Sep 66

Got a special Allen wrench. tightened down the dogs that hold the collar that holds the photodiodes and lamps. ~~Tightened down the~~ Doesn't help. the coller still moves FOO!

APP

9-10-66
WE NOW HAVE (2) TWO FULL TIME BABY MOTHERS (WIND UNITES) I LOWERED THE CUT IN PRESSURE SO IT WILL RECYCLE ON ONLY BY THE STAT. I CALLED CARCER AND THEY AGREE

RandY

30-JAN-67 0545

The scope is acting funny. It seems to shrink to smallest character size and no spacing occasionally, almost as though it were losing the GLF bits. To observe this, run CLOCK, on DTA7.

J. Sauter

9-10-66

1) DTA1 runs tape off when attempting to directory sometimes

2) 910-373-1799 unable to communicate with system

3) 910-373-1776 gives spurious return (on echo mode) every so often

C H Bleam

9-11-66

The line printer blew the blue grasshopper fuse in the lower left corner of the panel. (Twice). (the other fuse goes just above it).

Phil Pitt

THANKS FOR NOTHING! NEXT TIME LEAVE THE DAMMED FUSE WHERE IT WAS AND GIVE COLUMN+ROW INFO. WITH THE STATE THAT THE ANELEX PRINTS ARE IN, ITS ~~VERY~~ NECCESARY THAT YOU MAKE VISUAL OBSERVATIONS ONLY, NOTING WHAT YOU SEE + WHERE YOU SAW IT!!

RANDY

JIM LYNS

THERE IS A MISTERY AS TO THE FUSE FUNTION SEE ME MONDAY ABOUT THAT AS PER OUR PHONE CALL RANDY

2200 11 Sep did a check on TWX connections 1799 works OK. I suspect that 2.6.6 had forgotten about it. 1776 sat for several minutes without typing out anything. - perhaps a system bug, or else it depends on lots of other things going on

RRR

Power off 0445 12 Sep 66 RRR

POWER ON 0930 12 Sep 66 2132.0 JL

9-12-66 1100 Was Using Macro, just after calling it 2.6.6 Printed Parity Error LOC 200000 Pushed Restart on Parity Box - system died in XEX Mode System restarted from 140g

Isobel

9-12 J.L. 2135

Replaced MTR. DRIVE BELT ON TTY 5.
Replaced BOTH BRAKE & clutch 3 AMP FUSES
ON LINE PRINTER. PRINTING & ADVANCING
PAPER OK NOW. BUT PAPER puller Solenoid
WILL NOT ENERGIZE.

9-13 JL PowerON 2152.0

RAN TS MAIN 45 MIN OK
RAN BLT 45 MIN OK
RAN DECTAPE TEST on DTA 1 OK
(EXDATA)

PAPER PULLER NOW WORKS. FUSE APPARENTLY
WAS LOOSE IN ITS HOLDER.
THE LAMP & PHOTO cell MOUNT IS NOW LOCKED
DOWN. THE SPRING INSIDE THE LOCKING BRACKET
WAS TOO SHORT. INSTALLED SMALL SPACER.
(THANX TO FACXI KIT)

9-13 ACH Power on 2245
9-14 ACH Power off 0255

9-14 PWR ON 0920 2170.2

TRIED CONS TEST. CONS T & WAS NOT BEING
GENERATED. REPLACED TRANSISTOR (CIRCP) OF
1K18. CONS TEST complains AFTER RUNNING
A SHORT WHILE. WILL CHECK FURTHER J.L.
BIT 25 IS BEING PICKED UP IN RIGHT HALF
OF FINAL CONTENTS OF E.

9-15 SOMEONE OF ~~OTHERS~~ JOHNSON CONTROLS DID A BAD JOB ON ONE TEMPORARY SPLICE INTO THE AIR LINES.
THEY TAPED THE JOINT UP BUT IT STARTED TO LEAK ABOUT 2400 (9-14). THE LEAK CAUSED ALL DAMPERS TO GO FULL HOT (100+F)
NOW
I PATCHED UP THE LEAK, ITS ALRIGHT NOW
Randy

PWR ON 915 0925 2185.0

16 SEP 66

12:27 - DING DING - PARITY ERROR LOC 200000
R
TTY 5 PRINTS INCORRECT CHARACTERS ON LEFT SIDE OF PAGE. J.L.

9-16 2200
DEPOSIT and EXECUTE fail to read data sw. 19-35. Ø-17 are read correctly. P. Pool

Checked trouble found by O. Poole
problem seems to be in the 6615 in 2HJ15
pulse 1BRT ← AR(1) does not happen or at
least never gets to SC ON the back.

Weiher

Pulled board out and put it back
OK. now.

Weiher

9-17-66 1700

Memory Checker board doesn't run.
MB_{29} goes away. Sometimes in memory store,
more often in AC store. Shut off air conditioning.

1730: bit 29 still goes away.
1800: now bits 23+29 go away. ~~All~~
~~recently in AC~~. in AC, 23, 26+29 in
memory. Power Off.

J. Sauter

9-17-66 2130
Found cold-soldered jumper on

pin 5C of 2J15 (S.No. 0119097).
System works.

D. W. P.

9-18-66 1403

Parity Error Location 47111

Ding, Ding!

J. Sauter

9-18-66 2039

Parity Error Location 1610

POWER ON 9-19 JL 2243.0

TeleType PWR CONN. (AT REAR OF TTY

3 - YEL.	CONN. FOR 33	33 CONN FOR CONSOLE TTY	3 - RED
4 - RED			4 - WH. GRAY
6 - GRN			6 - WH. YEL
7 - BLK.			7 - BLK

PICKING UP BIT 11 IN CORE 2.
TRIED REPLACING SENSE AMP & INH. DR. TROUBLE WENT AWAY BUT WHEN ORIG MODULES WERE REPLACED, TROUBLE WOULD NOT OCCUR AGAIN (?)
REMOVED TTY 5 TO GO TO OFFICE FOR REPAIR.

9-19 · ADJUSTED 'LONG' STOP TIME ON DTA1
TO PREVENT TAPE TAPE COMING OFF TAKE UP
REEL.

LUBED TTY 3 2248.1

CONS TEST OK NOW.

9-20 PWR ON 2263-X

RAN BLT .5 HR. OK

~~[illegible]~~

2030 20 Sep 66

TTY #3 makes funny sounds and won't send correct characters to the computer. OK J.L

LRR

0100 21 Sep 66
Parity error
core 3 ~~lok~~ PMA 120001
DATA ≡ 0

ARR

0100 21 Sep 66

Mysterious ~~monitor~~ bugs in lisp, etc. ~~port~~ could be due to core or dectape problem when machine is cold. Also could be program - but not likely.

ARR

Ø41Ø 21 sept 66

Take-up reel on DTA6 seems out of adjustment. Please check.

ADJUSTED 9-21-JL.

J. Sauter

9-22 PWR STILL ON 2310.0

TTY 5 HAS BEEN REPAIRED, OK NOW (J.L.)

TTY 3 - ADJUSTED DRAGGING CLUTCH, OK NOW

9-22-66 11:40

NO RDRS

IF 1A

PAR BOX MA = 100320 Box 2

MB = 336002000407

CP: PC=MA = 322

IR = 0

EXEC MODE, CH7 ACTIVE

CPMB = PAR BOX MB

ALL CORE BOXES & PARITY BOX LOOK HAPPY.

J. Sauter

2100 9-23-66 Power off

SPR

9-23 PWR ON 2324.1

9-23-66 1810

System died and wouldn't load. READ-IN loader wouldn't work. Putting (710600)60 IN the switches and pushing the XCT key did not turn on the BIN or BUSY lights on the "tape reader". I suspect the I-O bus. There had been a power problem before (Power failure). However, the ~~power~~ problem (system dieing) happened before the power failure.

DEPOSIT of 710600000060 and re-examine gives good data to the KEYS, AR, MB & MI work.

John Sunter

↑ BAD ~~7655~~ 6155 in 1H9 (HWT).

Replaced. D. Pool

DTA1 doesn't stop

CP trouble appears fixed

2.617, ~~and~~ UINS4 & UINS5

LRR

0415 24 Sep 66 Power off 2443.1

ARR

1730 9-24-66

System died under mysterious circumstances. PI 1, 2, 3 & 7 ~~active~~ in progress, NON-EX MEM, and running part of the time in user core in EXEC MODE! Ran Cons TEST. IT waited a while then started printing continuously. Let run about ½ page. it is enclosed. Ran TS MAIN, switches 1-4 up. Punch and reader test (switches 7 & 5) worked OK.

1800 — Left TS MAIN Running while going to dinner.

1930 TS MAIN STILL RUNNING without any error messages. Loaded 2.617. Runs OK NOW. 1850.

John Santee

0055 25 Sep 66 Power off 2354.1
CHH

0130 25 SEPT 66

Power On. Core 2 came up with AW RQ off (evidently).

D. Poole

9-26 PWR ON. 0915 2374-4
Replaced 2894 on 149 (6155) circ. X
Orig. Module Replaced (OK now) J.L.

9-26 COULDN'T FIND HARDWARE LOG.

9-26 FOUND HARDWARE LOG
NO HV on PRINTER STATIC ELIMINATOR
SUSPECT FRIED INSULATION ON LEAD FROM
HV SUPPLY.

LRR

9-27 PWR ON 0930 2395.8
DTA1 - SNAPPED RELAYS K2-K6 & K4-K7
TO ELIMINATE COASTING WHEN STOPPING FROM
REVERSE DIRECTION.

2130 9-27-66

MI bit 9 doesn't light. tried changing bulbs - still doesn't.

John Santer

0900 PWR ON 9-28-66 2416.8

RAN DATA COMMUNICATION TEST DIAGNOSTIC.

FOUND 4706 FOR TTY CHANNEL 1 DROPS BITS INTERMITTANTLY. Replaced WITH SPARE. OK NOW.

9-28-66 2444.0

FIX MEM STOP&MEM CONTINUE PROBLEM BY REMOVING CHAMP LOAD ON 1M15 (PIN Z) ON PRINT-MEM. CONT - 166-0-MC-2

9-29-66 PWR OFF 2300

WPM

10-2-66

Core 3 hangs with RDRQ + P2 active

AWRQ off trouble is intermittent

possibly relate AR I→MB does not clear bit 22

both troubles suddenly went away

suspect machine cold

Wieher

10-2-66 1550

Tony Hearn, running remote, complained of "cold machine" errors. Specifically, I LL UUO at user 60 in a program that had been running all right. Honeywell said <70°. I turned Johnson from 65° to 72°. Honeywell started to rise but Tony had to log off right away.

John Sauter

10-2-66 1700

Line printer out of paper. Couldn't find the spares. Got 5 boxes from Comp Center.

John Sauter

10-3-66 2511.2

10-3-66 1300

System died with HALT in the IR, PC=5652. Examine (5652) revealed A jrst without a halt bit. Pushed continue, system started up.

John Sauter

10-3-66 Temp 62° 2519.0

RAN DATA COMM. TEST ON TTY 0, 2 & 3. (OK)

RAN BOT FOR 1 HR (OK)

10/4/66 – PWR OFF Guam 2526.2

System dies CPA illop temp 65

Wierby

bit 22 stays on when AR ≠ >1B. "

temp went up to 70 & trouble went away

10-8-66 PWR ON, 0900 2541.3

RAN BLT 45 MIN. (OK)

LOOKED FOR ABOVE TROUBLE. DID NOT OCCUR

~~Wher~~ EVEN THOUGH TEMP GOT DOWN TO 60°

INLET TEMP AT THIS TIME WAS 50°

10-6-66 POWER ON 0921, 2557.5

RAN INST TEST (TS MAIN) PT. 1, 2, 4+5 20 MIN. (OK)

10-6-66 – playing SPACE WAR; machine stopped.

IR = 0
MEMORY = 306540000111
PC = 2717
MA = 52
RUN = 1, MEM STOP = 0; PI ON = 1
"PI IN PROG." = 1
"PI REQUEST" = 4
"PI ACTIVE" = 77
MB = 7205 0000 7005
AR = 1647 5757 1210
MQ = 0

MEM. PROT. = 1
MEM RELOC. = 10
DATA REG. = 257
PTA = 3
TTE DATA = 215

FIXED BY ACTION "A" of operating instruction 1.1 Lewis.

10/6/66 2105

ACTION TO INHIBIT CLOCK INTERUPTS:

GROUND 2M12 S (INPUT OF CLOCK PG)

OR PULL MODULE 2M12 a 4410

CPA ILL OP BUG SEEMS DUE TO

BIT 22 of LOC 241 GETTING Z BRUED –

MAY BE SOFTWARE IT WAS !

WORD SHOULD BE

700 340 631 ~~000~~

word is 700340 ~~631~~
611 000

10/7/66 0035 Power off

ARR

10/7/66 11:06 Pwr on Guam

0-10-66 PWR ON 0900 2627-2

COMPUTOR STOPPING WITH IFIA SUBROUTINE

FF. ON. RESEATED MEM. BUS CONNECTORS ON 1664

BDS. EXCHANGED 1665 BD IN 1BC9 BECAUSE BUS

CONNECTOR WAS INTERMITTANT WHEN TAPED.

APPARENTLY THIS WAS A POOR MATING PROBLEM.

J.L.

10-10 J.L. 2336.5

REMOVED 100 Ω RESISTORS FROM 1B7 & 1B7
4657 IO BUS DRIVERS. (IN LPT 646)

10-10 R.B.

WIRED IN FOR DATAPHONE DATASET.
CONNECTOR IS LAYING ON FLOOR
TO BE INSERTED WHEN (MA BELL) GET
THRU WITH THEIR END
CONNECTED TO ~~[illegible]~~ DATAPHONE 02 ON PATCH PANEL

2645

10-11 1300

STOP ON FAST MEM CAME ON

WITHOUT APPARENT CAUSE.

ARR

10-11 21:20

Telelyse interface #2 doesn't work well on input from DATA Set connection
3 echoes as : on the calling machine and F on other machine
5 as ? and M
9 as ~~F~~ and N
– as ? and K

ARR

10-11

Rubout on TTY7
does not work

O Weils

10-12 0117
RD RS got lost ~~three~~ ~~times~~ Temp -80°
IF1A lit

SRR

10-12 0210 Power off SRR
10-13 907 Power On. K Pugh

10-15 1091 Run on 2726.9

WTR

10-16 0955 Power on B.W.P

10-17-66 12:00

System printed part of a parity error message, then a full one, then went into Run-Cycle Defer. (AF0). In both cases PC=0 and instr = BLKI 200. System died and had to be reloaded shortly thereafter.

J. Santer

ECO # 315 INSTALLED IN CORE '0' 2769.4
10-17-66 J.L.
ECO # 286 IN FAST MEM.

10-19-66 0130

~~System~~ Machine stopped in the middle of an instruction.

lights on in APR panel: CHF7, CHF5, LCF1, FE4, FE5, SC1, SC2, SC3, SC6, SC7, EXEC MODE, SC0, AR CRY 0 FLG, AR CRY 1 FLG, PC CHNG FLG, CLOCK EN, CLOCK FLG, PIA 34.

all others = 0.

all memories look OK, no parity errors.

MB = 37	INSTR = 135
AR = 22ØØ4	AC = 1 INDEX = 6
MQ = 37	PC = 3232

CP MA = 6556 PARITY MA = 1Ø6554

instruction stop, instruction continue made the machine go on.

J. Sauter

P.S. Location 3231 = 135ØØ ØØ3425
WHY WAS INDEX = 6 ??

J. S.

19 OCT. 2330

Shift ctr failed to count sometimes. Pin M of SC8 never changes, but pin L does works if tapped. Replaced SC8 with spare. Fixed.

D. P.
S. R. R.

140 20 Oct 66 Power off 2816.5 ARR

10-20-66 2832.9

ECO # 315 INSTALLED IN CORE 1-2 &3

REMOVED INTERLEAVE SWs FROM CORE 0-1-2&3

ECO # 299 INSTALLED IN 166

ECO # 282 INSTALLED IN 551

0035 21 OCT 66 Power off

ARR

#67 (TU) now wires on

interleaved only.

ARR + DT

10-21-66 PWR ON V.L. 2834.0

10.22.66 PWR ON BWP. 00:21

10-23-66 14:00

The line printer quit working.

After extensive testing, it became apparent that the problem was in the "Multiple Output Power Supply." There is 110 V. going in + nothing coming out.

The output at the secondaries of the Transformer seem to be low but since none of the God damned drawings indicate

What they should be, it is impossible to tell. We will leave the printer apart to facilitate its being fixed by someone who can read minds better than we can!!

Phil Petti

10-23-66 1755

166 doing random mysterious things. System died and would not reload.

J. Sautes

2020 23 OCT 66

INTERLEAVE SWITCHES!

2 IN CP at 2L 16 & 2L 19

1 IN FAST MEM AT BC 5

They are labeled as to which bits they affect. All in NORM gives no interleave. All in INTER gives bits

2020 23 OCT 66

gives LOTS of interleave
167 Data channel
works properly only in LOTS of
interleave.

ARR

0006 24 Oct 66

LOOKED AT PRINTER.
"MULTIPLE OUTPUT POWER SUPPLY"
APPEARS TO GET 110V ~~out~~ INPUT,
BUT GIVE ABOUT 1½V AT ALL SECONDARIES.
AS NEAR AS CAN BE SEEN THIS PS IS
LIKE DWG 33013 - 3 HAIRY
REGULATORS WITH SCR CROWBARS AND
∞ TRANSISTORS. THERE IS
NO WORD DESCRIPTION
OF WHAT THOSE REGUATORS DO
AND IT AIN'T OBVIOUS!
ANALEX DOCUMENTATION (?)
LOSES AGAIN!

ARR

0015 24 OCT 66

LOST RD RS IN IF1A 3 TIMES.

LRR

8:45 24 Oct. 66

Power On KKP

1855

Report of random operations they for yesterday, but with a new one! 11 DECJOAR loads moves DEC tape always but won't stop it. Most drastic example was one attempt slung wild the tape spun off the reel. Tried velocity. Hardware are lost. End of a perfectly good blind chess game!

Dr. Sinclair

2010 Replaced 6206 in 2K10 (PS, MA 22) -- would not set. Machine works

D. Poole

0530 25 OCT. 66 (1 R503, 1R107, 1 R401, 1 R602)

THERE IS NOW LOCAL POWER CLEAR IN THE SCOPE KLUGE BAY TO SERVE THE SCOPE L.P. A-D/MPX, DAC'S ETC

I HAVE WIRED THE 136 AS FOLLOWS

400 NS → TO THE 136 FOR 2 SECONDS, PRF 1 MCS (1 A8M)

100 NS → TO ALL FLIP-CHIPS " " , " "

THIS IS NOW WHAT WE HAVE → CPA POWER CLEAR V
IOB RESET V
LOCAL POWER CLEAR (IN KLUGE BAY)

IT WORKS!!!

RANDY

0730 25 OCT 66

THE ELARMØ (ELECTRIC ARM MODE Ø) LOGIC INTERFACE
IS NOW IN AND MY 10B INTERFACE
IS CONNECTED TO IT

ITS NOT DEBUGGED YET, SO IF THERE'S ANY TROUBLE
WITH THE 10B SCREAM!!!
→ RANDY

P.S. DEVICE CODE IS 420

---

900 25 Oct. 66

Power On

K Pugh

0020 26 OCT 66

MOD 35 TTY stripped GEAR

TRIED CHANGING TO A MOD 33

DIDN'T WORK

FOUND ONLY Ø MA DRIVE ON "20ma" COMPUTER
OUTPUT LOOP TO TELETYPE.

CHANGED 4707 AT 636 A1

STILL DIDN'T WORK

CHANGED BACK & FORTH SEVERAL TIMES

GOT BACK TO ORIGINAL 4707 and

FOUND 10 MA ON LOOP. IT WORKS NOW.

??

ARR

0020 26 OCT 66

DIA Ø WON'T RESET SOMETIMES

HHC

0430 26 OCT 66

DEVICE 420 now exists.

DATAO 420, L SENDS BITS 18-31 OF C(L) TO THE ELECTRIC ARM CONTROLER.

EVEN NUMBERED BITS ARE DIRECTION CONTROL FOR THE RELAY
ODD NUMBERED BITS ARE ACTIVATE.

EVERY TIME A DATAO 420, IS EXECTED THE ACTIVE UNITS ARE PULSED. THERE ARE A NUMBER OF TIMING RESTRICTIONS IN THIS UNIT DUE TO OPERATE TIMES OF THE DIRECTION CONTROL RELAYS, AND THE RECOVERY TIMES OF THE PULSERS. SEE BILL WICHMAN (RANDY) FOR A DETAILED DISCUSSION OF THESE RESTRICTIONS

IN THE FUTURE, THIS DEVICE WILL BECOME MORE COMPLICATED, AND A 20 WILL BE REQUIRED IN THE LEFT HALF OF L, THE WORD OUTPUT

08:15 10/27/66 2947.5 POWER ON
L. Morris

9:45 10/27/66 TTY 1 typed double
characters occasionally

K. Pitts

10-28-66

DTA 6 cows

Mike

0045 10-29-66

LIGHT PEN SWITCH CONNECTED IN PARALLEL
WITH CCW SPACEWAR SWITCH

ARR

0215 10-29-66 POWER OFF

ARR

1020 10-30-66 POWER ON 2985.9hm L. Morris

Monitor comes in, will start up and run null job,
even will say "JOB 1 INITIALIZED" BUT
won't recognize anything further.
Meanwhile, all 7 "PI ACTIVE" lights are on, and
the parity error light on the memory.
power off 11:06 L. Morris

10-28-66 1810

Ribbon replaced on printer.

J. Sauter

1820 29 OCT 66

Teletype #2 has a sticky carriage return

Teletype 0 ~~has~~ keyboard sends double characters occasionally.

CTY doesn't work or isn't connected

TTY5 sometimes prints [for 7.

ARR

1955 30 OCT 66

TTY #1 sends double characters

ARR

DEVICE 420, CONT

AS FAR AS IS KNOWN ALL THE OTHER IO STILL WORKS.

LRR & JRB

10-26-66 2939.7

REPLACED BUM MULTIPLE OUTPUT POWER SUPPLY IN PRINTER. J.L.

PRINTER R.T. METER = 1270.9

10-31-66 905 3031.2

Power On K. Pryle

~~INSTALLED~~ 10-31-66 (35) 3032.5

INSTALLED CONSOLE TTY. THE STRIPPED GEAR HAS BEEN REPLACED & ENTIRE TTY LUBED.

TTY 1 REINSTALLED & LUBED

TTY 2 - CARRIAGE RETURN PROBLEM CORRECTED

TTY 2 WAS ALSO LUBED. J.L.

TTY 1 CHECKED FOR DOUBLE CHARACTERS. WAS NOT ABLE TO CAUSE THEM. (?)

1630 10-31-66

CTY still gives a bad character first time after sitting idle for a while

B for D
A for ↑C
A for C

ARR

0830 11-1-66 POWER UP SYSTEM

C TY CAME ON WITH LOUD KRUNCH AND WINING, SHUT DOWN AS SOON AS POSS. BUT NEW (NYLON?) GEAR TRAIN ATE ITSELF UP AGAIN

CALLED DEC - COOK RANDY

3061.5
1376.2

11-1-66

PRINTER DOES NOT COMPLETE CYCLE INTERMITTANTL
ADJUSTED LAMP ASSY. FOR CODE WHEEL. IT LOOKS LIKE THE LAMP FILAMENT FOR CH. 7 HAS SAGGED
PRINTS OK AGAIN. J.L.

11-2-66 3076.6

INSTALLED ECO #283 (PI)

1500 2 NOV 66

MONITOR WON'T GET PAST

"PLEASE TYPE TODAY'S DATE"

11-2-66 3087.8

DECTAPE TEST WAS RUN AFTER SYSTEM HAD TROUBLE WITH TAPES. IT COMPLAINED THE DELAYS WERE NOT SET PROPERLY. CHECKED THOSE DLYS & FOUND THE DLY THAT USED TO BE 306 MS WAS ONLY 288 MS. HAD TO ADD ADDITIONAL CAP. BECAUSE POT WAS ALREADY AT MAX. RES. RESET ALL DLYS PROPERLY. BUT DECTAPE TEST STILL COMPLAINED. FOUND 4523 READ AMP FOR MARK TRACK WAS OSCILLATING. REPLACED SAME. BUT DECTAPE TEST STILL WAS UNHAPPY. FINALLY IT WAS DETERMINED THAT FAST MEMORY WAS AT FAULT. DECTAPES LIVE AGAIN. J.L.

A 1250 BD. WAS REPLACED IN 162. BIT 4 WAS BEING PICKED UP.

11-3-66 8:30 3098.2

Power Up

Pringle

10:30 Many ILL MEM REF AT 1051 –
can't get anything done

G. Sutherland

11-3 3106.0

CHANNEL 5 OUTPUT FROM CODE WHEEL LOOKED VERY POOR. READJUSTED LAMP IN LAMP ASSY. FOR THIS CHANNEL, LOOKS OK NOW J.L.

11-4 9:15

Almost continuous parity errors (Every minute or 2)
Always seems to be box/

11-4
TTY2 sometimes doesn't take new line on carriage return E.S.

TTØ gets 2 chrs. for the price of one also makes systematic substitution of chrs for a 5-10 chr. space about 2/3 of way across line

DWalker

1030 7 NOV 66

FOUND A FUNNY PSUEDO-MISSING RD RS BUG. PARITY BOX WAS STOPPING ON PARITY ERROR. EVEN WHEN PARITY ~~STOP~~ SWITH WAS IN GO. RESTART STARTED IT. CP LIGHTS WERE FGA + MC RD. ~~THIS DO~~ THERE REALLY WAS A PARITY ERROR BUT THE PARITY BOX SHOULDN'T HAVE STOPPED. ?

SUGGEST THAT NEXT TIME A MYSTERIOUS MISSING RD RS APPEARS SOMEONE TRY HITTING "RESTART" ON THE PARITY BOX. OR TRY LOOKING AT PARITY ~~1B12~~ 1B15 N which SHOULD BE AT -3 FOR ~~STOP~~ GO MODE ~~GO~~ STOP FOR ~~GO~~ STOP. ~~STOP~~ ERROR STOP FF

1 = -3 AT 1B12J · 0 = -3 AT 1B12K

ARR

1115 11-7-66

Old line printer bug back again - it started happening right after we reloaded paper. START → nothing. STOP → MANUAL PRINT. MANUAL PRINT → Printing part of a line. ect.

J. Sauter

1215 11-7-66

The DC's on the line printer have been re-defined. Now DCØ, DC2, DC3 & DC4 have the same effect as vertical tab, and DC1 skips one space (like line feed) but will run one-line-at-a-time even over page boundries. This is good for printing pictures that use more than one page - i.e., continuous forms.

J. Sauter

1245 7 NOV 66

ADJUSTED KEYBOARD ~~SOUTH TO~~ MECHANISM ON TTY0 TO REDUCE DOUBLE CHARACTERS

LPR

1330 7 NOV 66

Another pseudo-missing rd rdc stuck. NONEX MEM was there

FAST MEM HAD STOP TURNED ON. SOMETHING TURNED IT ON. RESETING FAST MEM MADE IT GO AWAY.

LPR

Power off 11/8/66 0313 3179.2 hrs.
Lockwood Morris

Power on 0815 - Single 3180.6
LOOKING FOR FM STOP PROBLEM. FOUND PIN K (THE OUTPUT OF SINGLE STOP SW.) HAD ABOUT 1 VOLT OF NOISE. ADDED 330MMF CAP. FROM PIN K TO GND TO REDUCE NOISE TO .2V. J.C.

11/9/66 0045

Line Printer Hanging Up - Reset/start done repeatedly cures problem temporarily.

Power off 00:48

Shugi

11/10/66 0 2:10 Power Off - no Printer trouble. Shugi

10-09-66 ~~15:18~~ 3222.8

PRINTING OF LOWER CASE O INSTEAD OF LEFT PARENTHESIS WAS CORRECTED BY RESTORING THE + & - 6 VOLT REGULATED SUPPLIES TO THEIR CORRECT OUTPUT LEVELS. + 6 SUPPLY WAS +5.6 & - 6 SUPPLY WAS - 5.7 VOLTS. THE -18 SUPPLY SHOULD BE SET AT -17.5 THE EXCITER LAMP ASSY FOR THE 6 LINE STROBE PHOTO DIODE NEEDED ADJUSTING. (FILAMENT SAG ?). NOTICED THAT 6 LINE STROBE PULSE AND FORMAT PULSE (CHANNEL 8) COINCIDENCE DID NOT STAY THE SAME BUT DRIFTED. FOUND THE VERTICAL FORMAT SPROCKET WAS NOT LOCKED DOWN TIGHT. TIGHTENING THE LOCK NUT CORRECTED THIS PROBLEM. JL.

10-13-66

1- DEV DAT ERR FROM MACRO ON DTA1 EVIDENTLY WAS XMISSION ERR BECAUSE I WON BY TRYING AGAIN

2- TTY0 PRINTS "1" instead of "3" consistently in col. 41 when used with "P" command in EDIT2 suspect bad TTY - It also ~~occasionally~~ frequently echoes double chrs

I. Sobel

10-13-66

DTA1 Giving frequent device data errors in EDIT2

TAPE IS GOOD; Same tape on DTA5 gives no errors

I. Sobel

10-14-66 5:45 3299.6

Power on

Pugh

10-15-66 POWER ON J.L. 3316.4

REINSTALLED PART OF ECO #294

ADDED CLAMP BOND - 1B14N TO 1B14V

1B09 V WAS MOVED TO W

1B12 V WAS MOVED TO W

RAN TS MAIN 15 MIN OK

RAN FAST MEM. TEST OK

RAN BLT 10 MIN OK

RAN DECTAPE TEST OK

10-17-66 PWRON J.L. 3362.3

INSTALLED ECO # 317 IN 166

11-16-66

Was running TV camera & bit 10 kept going away & thus causing a parity error.

The output of the appropriate memory bus driver P.A. was only about 1½ V. (W102 in F7). I switched the W102 with the one next to it (F 8), & the problem went away, so it must have been a dirty contact. I looked at it with the scope & the same W102 was now putting out a full 3 V. signal.

Robert Petti

2250 11-18-66 1

Thoroughly investigated TV system found

1) SLOW RETURN FROM WHITE TO BLACK DUE TO LONG CABLES. LEFT AS IS FOR NOW. CAN BE FIXED BY USING SHORTER CABLES TO COMPUTER AND CAMERA. WILL BE FIXED LATER WITH A VIDEO AMPLIFIER TO DRIVE LONG CABLES.

2) CAMERA AND MONITOR WERE OUT OF ADJUSTMENT. SYSTEMATICALLY RE-ADJUSTED THEM. ALSO BAPTIZED BILL WICHMAN AS VIDEO MAGICIAN. VIDEO IS NOW BETTER THAN EVER. MONITOR IS ALSO SOMEWHAT MORE HONEST.

WE STRONGLY URGE THAT THE CAMERA BE LEFT AS IS!

Russell + Wichman

19 Nov.

TTY & typer out currently. Things seem to be getting into one properly

Pingle

```
02450    LABEL3: SUBR EDGTRT;

*I.
02450    LABEL3: SUBR EDGTST;
*ILR*
*P.
02450    LABEL3: SUBR EDGTST;

*
```

SKIPO ML LO EDGE

SKIPO MN \\\ON NO EDGE

SKIPO ML NO EDGE

2235 19 NOV 66

Power off ARR

1800 21 NOV 66

Turning the ~~KEPCO~~ DELTRON POWER SUPPLY ON THE ARM OFF AND ON GIVES SPURIOUS INTERUPTS TO BLT mem diagnostic.

ARR

1600 dropping BIT 29 in Core Ø.
Replaced Sense Amps & Adjusted Slice Level. JJ DEC

~~30~~-Jan

TTY2 still gives 2 chars for price of 1 I.S.

NOV. 21, 1966

HAD LOTS OF BAD PARITY IN CORE "0"
CALLED DEC AND JERRY CAME OVER
HE + I RAN AUTO BLT. AND FOUND BIT 29
BAD, SWAPPED SA'S AND IT MOVED WITH
CARD, PUT NEW "SA" IN 29 AND NOW
IT WORKS
BAD SA WAS IN 1H12 OF CORE "0"

3:30 PM RANDY

NOV 21 1966 FURTHER ON ABOVE
THE MACHINE RAN FOR ABOUT 10 MIN
AND THEN THE WORLD TURNED TO MANUVER
THERE WAS 3 BAD SA'S IN OUR SPARE
STOCK BUT THE (4) ONE WORKED OKAY
+ WE THEN FOUND THAT THE MARGINS WERE
VERY POOR ON ALL SA'S OF CORE "0"
JERRY TWIKED THE POT ON THE SLICE LEVEL CARD
WHILE I RAN MAGINS AND RECYCLED THE PROG.
WE FINALY GOT ± 7.5V MARGINS
IT LOOKED GOOD AS OF
22:00 THIS DATE

RANDY

2200 21 NOV 66

```
)000027774  OPND = 021000004000
;56000000
 = 209: 13


 00027734  OPND = 241531022230
 6000000
  209:(5H$L31


 )027774  OPND = 021000004002
 )00000
  09: 50


 7734  OPND = 241531022230
 )00
  02
```

NOV. 21, 1966

HAD LOTS OF BAD PARITY IN CORE "0"
CALLED DEC AND JERRY CAME OVER
HE + I RAN AUTO BLT. AND FOUND BIT 29
BAD, SWAPPED SA'S AND IT MOVED WITH
CARD, PUT NEW "SA" IN 29 AND NOW
IT WORKS
BAD SA WAS IN 1H12 OF CORE "0"

3:30 PM RA

NOV 21 1966 FURTHER ON ABOVE
THE MACHINE RAN FOR ABOUT 10 MIN
AND THEN THE WORLD TURNED TO MARAUD
THERE WAS 3 BAD SA'S IN OUR SPARE
STOCK BUT THE (4) ONE WORKED OKAY
+ WE THEN FOUND THAT THE MARGINS WER
VERY POOR ON ALL SA'S OF CORE "0"
JERRY TWIKED THE POT ON THE SLICE LEVEL
WHILE I RAN MAGINS AND RECTIFIED THE PA
WE FINALY GOT ± 7.5V MARGINS
IT LOOKED GOOD AS OF
22:00 THIS DATE

RANDY

```
4,LIS\\SPGEN

4,LIS;\\\SPIO
```

2200 21 NOV 66

```
RE PARITY ERROR, LOCATION 000000027774  OPND = 021000004000
 = 350000020134  INSTR = 251656000000
 STATUS = 000000120077  TIME = 209: 13


RE PARITY ERROR, LOCATION 000000027734  OPND = 241531022230
 = 350000020134  INSTR = 251656000000
 STATUS = 000000120077  TIME = 209:(5H$L31


RE PARITY ERROR, LOCATION 000000027774  OPND = 021000004002
 = 350000020134  INSTR = 251656000000
 STATUS = 000000120077  TIME = 209: 50


LC*
4,LSPRUN

4,LISPWT


RE PARITY ERROR, LOCATION 000000027734  OPND = 241531022230
 = 350000020134  INSTR = 251656000000
 STATUS = 000000120077  TIME = 213:02
```

NOV 25 1966 4:30 PM

CORE "0" TURNED TO SHIT !!!

MARGINS HAVE CROSSCROVER
AUTO BLT SHOWED 20D+A 21D+A 18D 34D

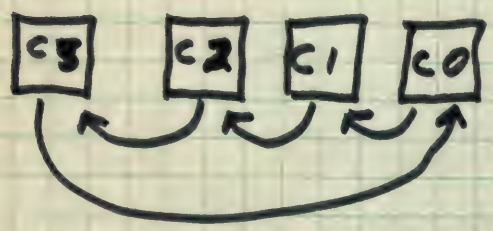
WILL CALL DEC MON. MAY HAVE CORE TURNED UP
BEFORE WARRENTY EXP.

FOR TIME BEING WE BYPASSED CORE "0"
AND WE ARE OUT OF INTERLEAVE ——

RANDY

MORE ON CORE 5:00 PM

P2 1664'S HAVE BEEN SWAPPED BETWEEN CORES



AND C"0" (WHICH NOW HAS C"3" 1664) HAS BEEN
PUT ON P0 ONLY RQ
WHICH MEANS NO CAMERA

FURTHER, 167 AS BEEN DISABLED

RANDY

Nov. 26 1966 7:00 A.M.

I traced the core problem to a 1996 module in 1L1 by the fact that the bad parity always occurred in addresses which went through that memory driver. I replaced the module & the box worked fine.

I re-interleved the machine & switched the bed-sheet boards back.

It is interesting to note that while the boards for box Ø & box 1 are numbered CØ & C1 respectively, the ones for boxes 2 & 3 are numbered C3 & C4 respectively.

I tested the camera & it works.

Phil Petti

NOV 28 1966 0700

CORE "0" STILL BAD R+W SEEM OFF + SLICE - SA'S MARGINS STILL BAD CALLED DEC WILL COME TUE?

0400 29 NOV 66

About 1600 28 NOV 66 LPT & DT's were reported acting up

Tested Core with 5 mm of BLT - OK

~~Fault~~ TSMAIN 6 MIN - OK

LPT ~~test~~ hung up

DT Test - it is normal to have CPAU ILL OP UP IT TURNS OUT, SOME COMPLAINTS ABOUT DATA CONTROL - 136 WENT AWAY WHEN TEMPRETURE CHANGED - MAYBE

BACK to PRINTER —

FOUNT LAMPS FOR CODE WHEEL MISSALIGNED. BENT THEM INTO ALIGNMENT.

I SUSPECT STRONGLY THAT VERT FORMAT LIGHTS ARE SIMILARLY OFF, BUT I'M NOT SURE.

FOUND ONE PRINT HAMMER ASSEMBLY WITH A COIL COMMING APART, BUT IT STILL WORKS OK.

ALSO FOUND THE PAPER PULLER BELT IS FRAYING.

HRR

0400 29 NOV 66 Power off SKR

1100 29 NOV 66

DEC WAS HERE, RAN A COMPLETE
PM ON 6 (SLICE CORE "0" LOW) → (MADE SOME BITS)
(NOSEY)
DTA'S SEEMS FULL OF VIM + VIGAR
INTEST OKAY, BLT ✓, MEM CHECKER ✓,
CORE MARGINS +-5.5V ON LOGIC -7.5 +9 SA'S
ALL CORES ± 3% ON ABOVE
ONLY THING THAT WE DIDN'T ADJUST
WAS LPT, IT RAN VERY FUNNY AT TIMES

LOOKING FUTHER INTO IT - - - - -

GETTING SPARE BELT
+
HAMMER ASSEM.
AND WRITE UP OF LPT TEST
FOR OUR UNITE —

RANDY

NOTHING CAN GO WRONG!

1400 29 NOV 66

DTA 5 Left Hub scrapes base plate

DTA 6 Left Hub very tight

ABR

0200 30 NOV 66

MADE DTA 6 LOOSE

RANDY

2215 1 DEC 66

TTY 2 SENDS 2 CHARACTERS

OCCASIONALLY (ESP. COMMAS)

M. Kahn

2350 1 DEC 66

~~the~~ System has hung up ~~two~~ 3 times in a channel 1 PI. 2 times with power on ~~was~~ AD and once without power on A-D. therefore A-D is not problem. the system seems to be in a tight loop in the first few words of ~~apprser~~ APRSER single stepping through the code stops this after a while.

It seems to be a bug in APR PI or PI system or may be in DECTAPE control or 136 #1 PI'S

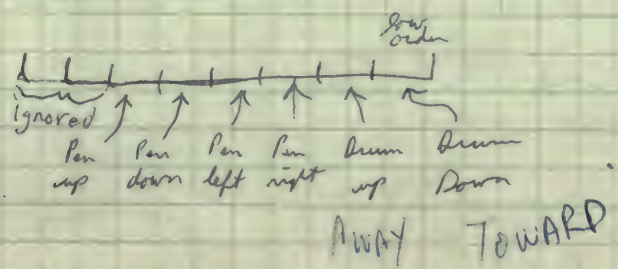
ARR

0025 2 Dec 66

TTY 7 ~~cont~~ CTL key is loose and low.

ARR

The Calcomp Plotter is hooked up & working. It may be used as follows. There is a switch above + to the left of the meter on the panel above the proper tape reader. Turn it to the "calcomp" position. Now the Calcomp replaces the punch & every character sent to the punch, goes instead to the plotter & is interpreted as follows:



12-2-66 7:00 A.M.

The machine no work.

The trouble started when I put the console "table" back into the machine. Checking showed a wire broken & several with insulation scraped off. I fixed these. They were in the cable to the indicators on the front panel.

The "PI in progress" light for channel 2 remains on although the flip flop is off. The machine hangs up in a way which indicates a pulse is being lost somewhere. I can find no other cable or plug problems. I am very tired. I am going home. Shit Shit Shit!

Good luck

Phil Ito

12-2-66 8:00

Ran Dmt test pd. 3 - halt @ 754 - "Clock failed to turn on"

12-2-66 10:00

Problems. 10B BIT 26 Lost. Found on 50 Pin Cannon Plug at 2L26.

MEMORY STOP and Repeat do NOT work. Turned Cable 180°
MEMORY STOP still does NOT work.
Repeat is OK.

PI 2 STILL NOT working properly.

JPS
DEC.

12-2-66 : 12:00 NOON.

PI Encoder Bad. Causes Interupt on Channel 1 To go To Loc 46.
Replaced Transister on G124 at 2N06.

JPS DEC.

~~12~~

2130 2 Dec 66

Changed Printer ribbon

RR

2200 2 Dec 66

Fan in Bottom of bay 2 have intermittent power wire

RR + DP

0000 3 Dec 66

Another PI system bug of PI ch 1 doing PI ch 3 code in the system. This should have been fixed ~~by~~ replacing the transistor in the PI system

0900 3 dec '66

occasionally the system will hang with chan. 4 in progress. It does not seem to be correlated with any piece of I/O gear. Within about a minute the condition goes away and the system starts running again as if nothing had been wrong.

J. Hunter

1915 3 DEC 60

Troubles with system BIT 22 of AR or AC 0 ~~keeps getting~~ stays on for TSCN + INDEX ADDS SAYS PT 1 of instruction test.

After numerious stops with bit 22 being 1 when it shouldn't or equal zero compares failing, PART 1 of INSTRUCTION TEST works

Suspect bit 22

we are going to eat—

Will be back

ARR

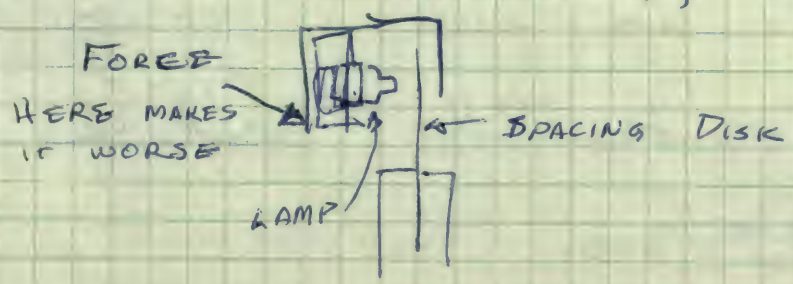
2210 3 Dec 66

INS TEST PT 1 RAN OK for 2 hrs

SHOULD TRY MARGINS ON AR RT

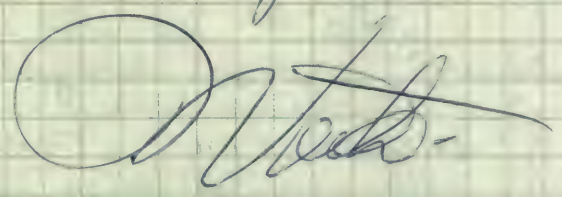
2130 3 DEC

PRINTER OCCASIONALLY SPACES ~~of~~ SEVERAL LINES INSTEAD OF ONE. THIS EFFECT IS INTENSIFIED BY PUSHING THE LAMP HOLDER FOR THE SPACING DISK DOWN LIKE SO:



ARR

left reel of DTA5 scraps



2400 3 Dec 66

Found Bad +10B margins on 2H (+3V

Replaced 6205 at 2HJ9 (bit ~~20~~ 22)

Margin on +10B now ± ∞

0115 4 Dec 66

Ran INSTRUCTION TEST, PART 3 AND IT WORKED

LOADED SYSTEM AND IT SEEMED TO WORK FOR

A MINUTE. THEN IT STOPPED IN A LOOP IN

EXEC MODE INVOLVING THE PI CH-B CODE IN

THE SYSTEM. NO PI'S SEEMED ACTIVE EXCEPT

~~CH~~ POSSIBLY CH 2 WHOSE PI AN PROGRESS

LIGHT IS STUCK ON.

ABOVE BUG WAS MERELY A USER

PROGRAM IN A UUO LOOP — SRR

FIXED DTA5 HUB

0130 4 DEC 66

OUTSTANDING BUGS:

LINE PRINTER EXTRA SPACES - 3 DEC NOTE
ALSO 29 NOV

~~ET~~ FAN IN BOTTOM OF BAY 2 OF CP 2 DEC NOTE

PI IN PROGRESS ON CH 2 LIGHT ALWAYS ON

TTY 7 CTL KEY 2 DEC NOTE
TTY 2 DOUBLE CHARACTERS 1 DEC NOTE
TTY 1 ~~MAKES BAD SOUNDS AFTER RUNNING FOR A WHILE. CHECK CLUTCH ADJUSTMENTS.~~ BROKEN

ARR

P.S.

POWER OFF & ON SEEMS TO WIPE THE RIM LOADER.

TTY Ø OR ~~TTY~~ TTY SCANNER POS #6 SEEMS TO INVENT CHARACTERS SOMETIMES

ARR

P.P.S.

WHAT HAS HAPPENED TO MOD 35?

ARR

DEC 4, 1966 0500 (AM!!!)

ABOUT 1 HOUR AGO THE SYSTEM GOT HUNG UP ON PI'S AGAIN. BUT THIS TIME I FOUND WHAT WAS WRONG WITH IT —

~~THE~~ THE PI ENCODER GATE WHOSE OUTPUT IS PIN R (2N06) WOULD RANDOMLY GO TO GROUND WITH NO OUTSIDE HELP (ALL INPUTS HELD AT 0V)

THIS WOULD MAKE THE MA RECEIVE PI ENC 33 → ALONG WITH PI RQ + THE REAL PI CHANNEL REQ

THUS WHEN MA ← PIEH WAS TRUE

BIT 33 WAS GATED INTO THE MA —

WHEN IT WAS OR'RD IN AND THE SYSTEM LOOKED AT IT, IT WOULD STEER THE SYSTEM TO THE WRONG INTERUPT ROUT. AND GET ALL SCREWED UP —

~~WE MIGHT HAVE NOTICED SOONER BUT THE PI IN PROG. LIGHT ON CHANNEL 2 IS~~ —

THE CURE WAS AS FOLLOWS: ???

AS I SAID THE ~V GATE IN 2N06R (6124) WAS AT FAULT AND THERE WAS NO SPARE! SO I WITH THE HELP OF LIN & JOHN TRIED TO FINE A 6124 IN THE BRAST →

WHICH DIDN'T USE L, M, N, P, R, TO SWAP WITH AND WE FOUND ONE IN IR5 (ET 10, FC(E) PSE, FACZETO ---.

I REJUMPERED THE CARDS AND SWAPPED THEM AND AS OF 30 MIN AGO THE SYSTEM HAS BEEN RUNNING —

IF AND WHEN WE GET A SPARE BE SURE AND MAKE THE CLAMPED LOAD JUMPERS THE SAME — JUST COPY WHAT I DID AND NOTHING CAN GO

WRONG

RANDY

P.S. THE REASON I DIDN'T TRY AND FIX CARD, WAS THAT WHEN I PUT IT IN THE TEST RACK IT FAIL FOR 1 MIN AND THEN WORKED FINE!
TRIED HEAT, COLD, SHOCK - - - NOTHING —

RANDY

2045 4 DEC 66

FOUND BY PATCHING THAT TTY Ø IS SENDING RANDOM CHARACTERS TO COMPUTER. ~~SOMETIMES~~

ARR

2030 4 DEC 66

A-D converter & multiplexer

CONO BITS

18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5
MULTIPLEXER CH #						STOP IO	MPX AUTO-INC	STEREO	# of BITS			SPEED			PT		
									(LATER)			(LATER)			(LATER)		

ALL OF THESE NOT YET IN

GIVE CONO to 136 Dev 204

CONO TO A-D Dev 429

CONSO 204

JRST 1,-1

DATAI 204

etc.

ARR

1300 DEC 5 66

LPT SKIPPING LINES ADJUSTED DIODE LIGHT BLOCK ON SPACING

JPS DEC
&
RANDY

THE A-D IS WORKING; THO NOT FINISHED IF PEOPLE WILL BEAR WITH ME FOR AWHILE I, WITH THE HELP OF ARAN, WILL CALIBRATE IT AND PUT IN THE NEW MODES TO MAKE IT WORK TO EVERONES SATIFACTION.

UNTILL ITS THRU, I HOPE THAT PEOPLE WILL ASK ME FIRST BEFORE RECONNECTING WIRES AND REMOVEING PROBES + CABLES.

IF I'M NOT HERE PLEASE CALL 368.9050 I HAVE AN ANSWERING SERVICE

RANDY

0305 Dec 8, 66 Power Off Meter 3812.1

AGB.

12/9/
19:10

Recurrent Device Data Error DTA5 - changing the scratch tape on DTA5 did not cure it.
User error - directory not cleared
HJR

12/10/66 - ~~12/11/66~~
14:00 — Repaired bad d/y IN CORE 2 which MADE THE POWER ON LOGIC MARGINAL. EX. AWRQ WOULD NOT COME ON DURING THE POWER ON SEQUENCE.

12/11/66 1. ADJUSTED R/W & SLICE IN CORE Ø. SENSE AMP MARGINS ARE -9.5, +10
2. REPLACED SENSE AMP BIT 15 IN CORE 0. " " " " " "
3. ADJUSTED R/W IN CORE 2 SENSE AMP MARGINS ARE -9.5, +10
4. CORE 3 HAS -9.5, +10 SENSE AMP MARGINS.
5. REPLACED INDICATOR DRIVE FOR PI-H #2.
6. REPLACED 1665 CORE Ø. MARGINAL BIT 7, PICK UP.
7. FOUND SEVERAL COLD SOLDER JOINTS ON THE 1664 & 1665 BOARDS IN CORE Ø. RESOLDERED.

R. BROOKS
DEC

2135 11 DEC 66

Printer is giving spurious spaces again.
JRK

12-11-66
TY7 gives wrong characters
Weiher

12-12-66 1015
System hung up just after loading
Computer was cold.
Ch 3 PI PC = 336 ~~Ch 3~~ 1

IF 1A MCRD MCWR PI CYC EXECMODE
EX ILLOP EX PI SYNC CLOCK EN CLOCK FLG

Restarting at 140 gives more trouble
but then its OK

Apparently cold computer problems
as Computer was off and room was cold.

ARR

10 15 12 Dec 66
Run light is intermittent.
Poking it will turn it off or on

ARR

11 30 12 Dec 1966
LPT: is yielding garbage
ES

12/13/66
LPT Spacing problem.
Tightened Diode Block
JPP DEC.

~~12/13/66~~

2400 13 DEC 66

POWER OFF TEMP = 70°
PLEASE RECORD TEMP ~~ON TH~~ WHEN
POWER IS TURNED ON ARR

1200 14 DEC 66

Printer was printing gurbeled
Found that printer drum was not
up to speed - drive belt was slipping
After a while it warmed up and
worked OK. Probably the
Drum drive belt needs tightening.

LPR

14 Dec
TTY0 still gives 2 chrs. for the
price of 1 occasionally

Weiher

2100 14 DEC

TIGHTENED PRINTER DRUM DRIVE BELT
A LITTLE. PERHAPS IT WON'T GARBEL WEN
COLD NOW.

LPR

15 Dec '66 0650

Power Up. Honeywell sez 70°.

All mems came up OK, and system still in core,

J. Sauter

Ø7Ø5 Dec 15 1966

New system died for no obvious reason. Suspect perhaps CP is cold. I will let it cook for a while.

J. Sauter

Ø8ØØ Dec 15 '66

works ok now. Temp still = 70°

1215 15 Dec 66

~~CP~~ Lisp ~~gives~~ gave ~~occasional~~ ILL UUO AT user 6Ø to ~~lisp~~ User 3 time seems to come and go with CP temp cold CP = LOSING CP.

ARA

1220

Ran UINS4 to Keep CP warm and set HONNEYWELL TO 74°
JOHNSON TO 72°
TURNED FAR AIR CONDITIONER TO FAN

ARA

TTYØ frequently "prints characters wrong", ie if you type a "T" sometimes a "Q" gets echoed. (The "T" goes in however).

Quam

1235 16 DEC 66

~~Ste~~:
Stop ON PARITY SWITCH DOESN'T WORK. IT ALWAYS STOPS
ARR

1715 16 DEC 66

~~Roo~~ JOHNSON SET TO 70°
HONNEYWELL SET TO 74°
ROOM TEMP = 75°
W UNIT ON COOL
E UNIT ON FAN
RESET HONNEYWELL TO 73°

ARR

1820 16 DEC 66

MISSING RD RS problem

CP: MC RD
MC WR
F6A
STOP SYNC

MA = 6144
MB = 777777777777
PMA = 026144
PMB = 0

CORE 0

CMA 26144

CMB = 0

PWR

RD RQ

WR RQ

SYNC

P2 ACT

P2 LAST

SUSPICION: RD RS GOT TO PARITY BOX, BUT NOT TO CD

TEMP = 73

2030 16 DEC 66 but in core 2

Recurrence of above (different loc. and data).

D. Poole

1600 17 Dec 66 Power off 3983.0 meter
John Halperin

1706 17 Dec 66 Power on 3984.0 D. Lebel

1750 17 DEC 66

Missing RD RS Core 2, F6A

LRR

12-17/18:31 Power off 3985.5 O Stel

12-18/12:15 Power on 3985.6 Pugle

12-18/2330 Power off 3996.8 D. Poole

12-19-0900 Power on 3997.0 R B

12-19-66

Printer skips spaces & form feeds as usual

Pugle

12-19-66 1235 - Missing rd. rst - IF1A box 3 - twice!

Found that the STOP MODE line is intermittent in the connector at the switch (in the 169). This should be fixed, and it might account for both the "missing read rst" trouble and the occasional malfunctioning of the STOP ON PARITY ERROR switch.

D.P.

12-20-66 0001 Power on 4011.1 D. Sobel

12-20-66

LPT: seems to be skipping random lines and randomly responding to programmed form feeds

I used it to LST a different tapes with both EDIT2 and PIP2 and trouble was still there

Evan Sobel

12-20-66 0101 Power off 4012.1

I. Sobel

12-20-66 0230 Power on 4012.1

J. Sobel

12-20-66 Machine stopped while loading system with EX ILLOP PC=2

MCRD

MCWR

IFIA

couldn't get system loaded nohow

12-20-66 Power off 0318 4012.9

I Sobel

Dec 20 66

REPLACED BAD 6124 IN IR5
SEE LOG DATE DEC 4 66

RANDY

Dec 20 66

LPT SKipping Lines.
Only on Certain Places on disk
Pushing down on Lamp assy
Made problem worse. PUT spacer
on set Screw which held down
diode & Lamp assy. This made
everything OK. Now the Lamp
Assy can be pushed, pulled, LeFT
right, up, down with No ILL
effects JPS. D.E.C.

12-20-66

Cards replaced:

1M17 (cold mem. bug)
3E6 (RLA23)
Core 2, 1E6

Memories all need adjusting - esp. core 2.

12-21-66 0210

CORE TWO HAD A VERY FUNNY BUG —
WHEN WE (DAVE + I) WOULD RUN AUTO BLT OR CHECKER B
THEY WOULD RUN FINE. BUT WHEN WE LOADED
THE SYS. IT WOULD GET PARITY ERRORS
IN ONE OF TWO LOC'S IN CORE 2 NAMELY 5576
& 112.
5576 CONTAINED A PUSHJ AND WE FINALLY
FIGURED WHICH BIT WAS BAD (IT WAS BIT 32)
DAVE + I PUT A FEW INST. IN CORE TO R+W
THE SAME BIT PATTERN AND FOUND THAT BIT 32
IN CORE 2 WAS BEING ADDED
AFTER POKING AT IT WE FOUND THAT CMB 32
WAS BEING SET AT WRONG TIME (SHOULDN'T HAVE AT ALL)
1665 IN 1BC15 P"2" WAS glicting AND
SETTING BIT 32 HAD BROKEN DIODE ON BOARD
RANDY

12-21-66

STOP ON PARITY ERROR SWITCH NOW WORKS BAD SOLDER JOINT ON PLUG

RANDY

12-21-66 2230

Machine getting lots of parity errors

I-Sibel

A lot of them when reading TV Camera

also some when not and not in my TV Buffer

— System died

MEM = 777777

PC = 22

MA = 10

REC MODE

CLK FLG

lt

I.S.

really dead! Couldn't even get the hand waving loader in.

12-21-66 Power off ≈ 2300 4050 &

I.S.

12-21-66 2350

Cleared out, system runs.

Put monitor back in "RUN" mode. D. Pooh

22 DEC. - 0330

FIXED DATA CHANNEL PARITY TROUBLE. SOME ~~*FIXER~~ LEFT A 6102 IN CORE 2, 1015. REPLACED WITH A 6684.

D. Pool

22 DEC. 1415

Switching memories from MAINT to RUN (with CP stopped) seems to destroy core. D. Pool

26 DEC 1615

Line printer sick - start, stop, manual print. Test Print works OK so I suspect the controller.

J. Santer

27 DEC 66

CALL DEC ABOUT PRINTER

WILL COME TOMORROW MORN.

RANDY

12/27/66

LPT dropping BIT 6

Found -4V on Pin 5 of I/O Cable at 676 Control unit, however, Pin 5 at The Printer Side is dead. Looks now if Cable is open. will return Tommorow morning early To Complete This

JPS.

DEC.

12/28/66

LPT: Removed 50 Pin I/O cable between LPT and Control, checked Cable & connectors, all Looked Good. PUT The all back Together & Printer works

JPS

DEC.

12/29/66

FANS HAVE BEEN PUT IN 167 BAY

HOPE THEY cool!

321-7990 DATAPHONE IS OUT! MA BELL will PUT PARTS IN MONDAY (IT ATE ONE RELAY)

MCR

→ LPT IS SICK
DEL HAS WORKED ON IT ALL DAY
WITH NO RESULTS
WILL COME BACK TOMORROW

MADE SOME MODS TO AD-MX
WILL FINISH ON 30 OF MONTH

RANDY

12/31/66 1500
CPU has not been turned off since 12/22, and will continue to be left on, following advice from Bob Brooks et al.
TIMER = 4281.8 D. Poole

1/1/67 1300
LPT Still does not work

Pugh

1/1/67 1600
There appears to be a bug in the 167 -- sometimes it still gives parity errors.
D. P.

1/2/67 2045

Fixed parity bug in data channel by replacing 6684 in core 2, 1015 (section 1 was bad).

D. Poole

1/3 WORKING ON line PRINTER NO CONCRETE CONCLUSION

1/4 1000

630 seems to have hung while scanning. consol TTY still worked but none of the others. Bottom set of lights not going as normal but brightly lit.

Bill Weiher

1/4 TTY 1 gives 2 for price of 1 and sometimes wrong character (random)
TTY 7 still doesn't seem to work!!

D Weiher

1800 5 JAN 68

CALLED MA BELL ON DATA SET
THEY REPLACED IT. IT WORKS.

THERE SEEMS TO BE SOME DISHONESTY IN THE 630 maybe. some characters get gabbeled sometimes maybe. Dedu't have time to investigate.

MCR

7 Jan
DTA 2 and 5 spins at random — Crash seems to begins

```
NAME.EXT=HØLØ
NO SUCH FILE
RD$G

NAME.EXT=HOLO
NO SUCH FILE
RED$
U   RD$G

NAME.EXT=HFAR



CORE PARITY ERROR, LOCATION 000000122670  OPND = 074071200122
PC = 350000000001  INSTR = 344000000001
DATE = 000635573420  TIME = 212:04


CAM+2/   TRCN OX,0   DP$G



CORE PARITY ERROR, LOCATION 000000122670  OPND = 074071200122
PC = 350000000001  INSTR = 344000000001
DATE = 000635573421  TIME = 212:34


CAM+3/   0   DP$G



CORE PARITY ERROR, LOCATION 000000122670  OPND = 074071200122
PC = 350000000001  INSTR = 344000000001
DATE = 000635573421  TIME = 213:03


CAM+4/   JRST TVP,0
```

1/2/67 2045

Fixed parity bug in d+ channel by

Nr 6

in the DSC magtape. Some characters
got gabbeled sometimes maybe. Didn't
have time to investigate. MRR

7 Jan

DTA 2 and 5 spins at random — Crate seems to be gone

Pug C

7 Jan.

Auto sensitivity on TV camera does not work

Pug C

9-Jan-67

Parity errors. two at 33315, one at 53747, one at 54025.

J. Sauter

10 Jan-67

Printer up & running.

Replaced Lamp Assembly on Code wheel
Replaced Diode cover on code wheel
Replaced Diode in disc Line Count Assembly.

JB D.E.C.

10:30 AM 1-11-67

fast memory went non-ex, killing the system. Restart (DAMNIT) turned off STOP and the system could then be reloaded.

J. Scanter

1350 1-11-67

REPLACED 4604 CARD @ 1A7 IN 136 -

NARROW RESET PULSES TO CHAR COUNTER (1A16) -

DECTAPE TEST CAUGHT IT -

2020 11 JAN 67

Parity error

CORE PARITY ERROR, LOCATION 000000072515 OPND = 777773052521
PC = 750000022654 INSTR = 231040000044
PI STATUS = 000000120037 TIME = 216:35

SRR

2025 11 JAN 67

```
CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000021765  INSTR = 342040002032
PI STATUS = 000000120037  TIME = 223::03
```

```
[illegible], LOCATION 000000072515  OPND = 777773052521
[illegible]0000022002  INSTR = 554107000000
PI STATUS = 000000120037  TIME = 239:14
```

```
CORE PARITY ERROR, LOCATION 000000071355  OPND = 777773051401
PC = 750000022654  INSTR = 231040000044
PI STATUS = 000000120027  TIME = 2251:36
```

0830 — 1/12/67
Log Ours On CTY When I Came In —

OVER

```
.?
.?
.

CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000022654  INSTR = 231040000044
PI STATUS = 000000120037  TIME = 13:27
```

Morse
0100 12 JAN 67

0730 1/12/67

LOG OUTS ON CTY WHEN I CAME IN

RON

```
CORE PARITY ERROR, LOCATION 000000075105  OPND = 061762045104
PC = 750000032654  INSTR = 231040000044
PI STATUS = 000000120027  TIME = 327::24

CORE PARITY ERROR, LOCATION 000000075005  OPND = 007730106102
PC = 750000032654  INSTR = 231040000044
PI STATUS = 000000120037  TIME = 515:10
```

1120 12 JAN 67

TTY LINE PATCH 2 DOES NOT RECIEVE CHARACTERS FROM THE TELETYPE KEYBOARD CORRECTLY

ARR

1340 Jan 13

TV camera getting parity errors (PAR ERR light on 167).

J. Sauter

(happens even when no one is using the camera!)

```
(EXAMINE 52515)
IGL MEM REF FROM 5365
↑C

.C
2K CORE LEFT

.CORE 14
2K CORE LEFT

.CORE 0

.CORE 14

.R LISPXY 14

ALLOC?↑C

.K

.?
.?
.

CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000022654  INSTR = 231040000044
PI STATUS = 000000120037  TIME = 13:27


CORE PARITY ERROR, LOCATION 000000072505  OPND = 777773047621
PC = 750000022654  INSTR = 231040000044
PI STATUS = 000000120037  TIME = 14:09


CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000022654  INSTR = 231040000044
PI STATUS = 000000120027  TIME = 25::47
```

```
CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000021765  INSTR = 342040002032
PI STATUS = 000000120027  TIME = 2322::12



?
.
 .
  .
   .
    .
     .
      .


.C
ØK CORE LEFT

.DAY
11-JAN-67
2326:32.Ø3

.

CORE PARITY ERROR, LOCATION 000000072515  OPND = 777773052521
PC = 750000021765  INSTR = 342040002032
PI STATUS = 000000120037  TIME = 2328::19


C
?
.C
14K CORE LEFT

.R LISPXY 12
JOB 2 INITIALIZED
STANFORD 2.6/11A
11-JAN-67
2330:1.52

ALLOC?
```

1/13 TTY7 loses characters Quam

THE CLOCK:

~~A wonderful~~

A wonderful new device has been added to the computer. It is a clock. It is device 43Ø. It is read with a ~~Data~~ DATAI. It gives you 36 wonderful bits. They are:

bit	
Ø	Clock Invalid
1	Year Invalid
8-11	high order digit of year (Ø-9)
12-15	low order digit of year (Ø-9)
16-19	Month (4_{10} - 15_{10})
2Ø-24	Day (1_{10} - 31_{10})
25-29	Hour (8_{10} - 31_{10})
30-36	Minute (4_{10} - 63_{10})

P. Petit

1-15-67 1645

PC change enable came on for no obvious reason. A clip lead from 2M2 T to ground. System died. Reloaded from tape.

J. Sauter

```
(DEFPROP NOW (LAMBDA (LIST ) (LISTAPPEND (QUOTE L(LIST)) LIST
(↑C

.K

.

CORE PARITY ERROR, LOCATION 000000036601  OPND = 757072107600
PC = 350000104274  INSTR = 200040064420
PI STATUS = 000000120037  TIME = 224::31
```

15 JAN 67

```
?
```

2330 15 JAN 67

PARITY ERRORS ~~TN 5~~ FROM SYSTEM IN CORE 1
BLT complained about dropped right
1/2 of various locations. Pounded
on back of 1664's + 1665's in CORE 1
~~BUG~~ BUG went away.
left BLT running

ARK

~~10~~:40 16 Jan

Core Box 1 would not (read write?)
data in any location whose address had
bit 31 on. Was still checking effect when
bug suddenly disappeared

Weiher

10:30 AM 16 Jan.

System suddenly started getting parity errors
(next page.). Pounded on bedsheet boards in core 1.
no help. Loaded BLT. worked fine in non-interleave. Loaded
system. Worked fine. Loaded system in interleave. worked fine.
Bug Went Away!

J. Santos

```
33K CORE LEFT

.C 33

.K

.

CORE PARITY ERROR, LOCATION 000000164061  OPND = 000012002000
PC = 750000000000  INSTR = 504154640000
PI STATUS = 000000120027  TIME = 133:45


CORE PARITY ERROR, LOCATION 000000164065  OPND = 000010000000
PC = 750000000000  INSTR = 504154640000
PI STATUS = 000000120027  TIME = 134:04


CORE PARITY ERROR, LOCATION 000000164071  OPND = 000370200200
PC = 750000000000  INSTR = 504154640000
PI STATUS = 000000120027  TIME = 134:24


CORE PARITY ERROR, LOCATION 000000164121  OPND = 000000000000
PC = 750000000000  INSTR = 504154640000
PI STATUS = 000000120027  TIME = 134:43


CORE PARITY ERROR, LOCATION 000000164135  OPND = 000010000000
PC = 750000000000  INSTR = 504154640000
PI STATUS = 000000120027  TIME = 135:03


CORE PARITY ERROR, LOCATION 000000164161  OPND = 000000000000
PC
```

[somebody typed in the time wrong! J.S.]

system died here

1-16-67 noon

Some of the TTY's feel bad.
In particular:

TTY1 needs the position of the first character on a line adjusted.

TTY7 sends wrong characters occasionally.

TTY4 likewise.

J. Sauter

1-16-67 12:30

System died, wouldn't restart or reload.
Switches showed that core 1 was dropping bits.
Put memories in normal and loaded BLT.
It started complaining right away. Will call DEC at 6:00.

J. Sauter

1/16/67 –

CORE 1 PARITY BUG –

UNSOLDERED JOINT (PIN 7) of 6227 BOARD @ 1D23 – APPEARS OK NOW – BLT RAN FOR ≅ 5 MIN ERROR FREE –

1/16/67 –

DATA CHANNEL DROPPING BITS AGAIN: A WORD OF MAX INTENSITY SHOULD READ 6 - - - 6, INSTEAD COMES OUT 622662266266. TROUBLE TRACEABLE BACK AS FAR AS 167 SHIFT REG. SHIFT PULSES LOOK ODD (27–35 AT LEAST). NO TIME TO CHASE NOW.

WMW

1/17 – DATA CHANNEL TROUBLE FIXED – OLD VIDEO TERMINATOR GOT SHOVED INTO GUTS OF KLUDGE.

W

1-19-67

TTY #1 HAS BEEN FIXED (I THINK)

RANDY

1/21/67 22:10

TTY's still feel bad, as follows:

TTY2 gives multiple chars + keys stick

TTY1 prints while carriage is returning

TTY4 transmits wrong chars

TTY0 also (maybe receiver)

J. Sauter

1130 21 JAN 67

Oiled TTY2, adjusted keyboard no sign of key sticking.

ARR

0243 22 JAN 67

Oiled and adjusted carriage return dashpot and keyboard on TTY 1

ARR

1/22 1:30

TTY 2 gave a double character

Winter

1/22 2300 22 Jan 67

Plotter connection rewired:
changed

1) 2 WATT RESISTORS ARE NOW USED WHERE 1/2 W RESISTORS WERE DISSIPATING 1 W

2) Codes to plotter are changed to match MAYNARD

CODES NOW ARE

1	RIGHT	PEN
2	LEFT	PEN
4	TOWARDS	TOP OF DRUM
10	AWAY	"
20	DOWN	PEN
40	UP	PEN

LRR

0100 23 JAN 67

FAR GREEN MONSTER AIR CONDITIONER GAVE HOT MOTOR SMELLS. TURNED IT OFF.

LRR

0105 23 JAN 67

TROUBLE WAS NOT AIR COND
IT WAS THE PRINTER! LRR

0110 23 JAN 67

MULTIPLE OUTPUT P. S. WAS VERY HOT IN ~~TRANSISTOR~~ TRANSFORMER AND BOTTOM HEAT SINKS

LRR

1/23/67 0845

BUGGED DEC ON LPT - WILL HAVE SOMEBODY UP THIS MORNING -

Ron

0530 23 JAN 67

AL ROBERTS OF DEC CHECKED PRINTER. FOUND "MULTIPLE OUTPUT POWER SUPPLY" WAS RUNNING VERY HOT, BUT PRODUCING CORRECT VOLTAGES. HE SAID HE WILL ORDER A NEW ONE FROM MAYNARD. HE ALSO SUGGESTS THAT WE KEEP USING THE PRINTER, BUT TURN IT OFF WHEN NOT IN USE.

LRRussell

1100 23 Jan 67

Adjusted TTY2 Keyboard

LRR

1/24/67

Ran Dec tape test on all bad DEC tapes -
All but 2 are now ok - Ron

```
RITY ERROR, LOCATION 000000070515  OPND = 007723050516
000022654  INSTR = 231040000044
000000120027  TIME = 242:01
```

Jan. 25-67

GOD DAMN TTY2 gives

DOUBLE CHARACTERS !

— P. R.

26 JAN. - 0025

12-BIT DAC BENEDICTUS EST.

ERROR < 1/4 L.S.B.

ALSO, DAC WILL RETAIN ITS FINAL SETTING AT END OF A XMISSION.

D.W.P.

0940 26 JAN 6

TTYØ sends or prints spurious. Tried patching ~~to a def~~ LINE PATCH to a different TTY and it cleared the trouble. TTY Ø probably has dirty contacts.

ARR.

1100 26 JAN 6

CORE MARGIN

CORE 0	CORE 1	CORE 2	CORE 3
SA'S +10 -8 +10B	SA'S ±10V	SA'S ±10V	
DRIVERS & SELECTORS ±10 10V A+B	±10V	±10V	

AUTO BLT RUN 4 MIN OKAY

RANDY

27 Jan 5:20

The delay in the PTP control for the Calcomp has been tweeked (Tweek tweek). The total cycle time is now about 3.4 m.s. (i.e. abt. 300 chr/sec.).

The tweek involved moving a jumper on the 4303 & the prints have been modified accordingly

P. Pitt

28 Jan

TTY7 gives incorrect characters @ for A R for S Sound like losing low order bit

Weiler

2135 28 JAN 67

SYSTEM GOT MANY PARITY ERRORS AT LOCATION INDETERMINATE.

RAN BLT OK for 6 MIN then
PE @ 64061 WD: 762163022160
SAME WD IN CORE 1, MB BLT Says err in BIT 15 ~~SAME SAME~~
~~Must be rockout up bit 15~~ WAS DROPPING BIT 15

ANOTHER PAPER

LOC 41001 c = 7654 02 025001

LOC 41011 c = 7654 12 025011

LOC 41021 c = 7654 22 025021

LOC 41061 c = 7654 62 025161

POUNDED ON 1B of core 1

TO GET DROPPED BIT 9

~~HIT~~ BEAT ON 1B SOME MORE. NOTHING

HIT CANNON PLUGS ON 1B STOPPE

LOWEST CANNON PLUG ON 1B IN C. IS VERY SENSITIVE —

FOUND BROKEN WIRE ON PIN 3 OF SAID CANNON PLUG. CMA Bit 30 ZERO SIDE.

RESOLDERED.

BLT RUNS OK

FOUND A SIMILAR BUG IN TOP CANNON PLUG OF CORE Ø DOESN'T SEEM TO INTERFERE WITH NORMAL OPERATION SO I DIDN'T PURSUE.

AAR

0100 29 JAN 67

ALSO WIGGLING CABLE TO MIDDLE CANNON CONNECTOR IN ~~[illegible]~~ CORE 1 CAUSES PARITY ERRORS.

SRR

1000 - 30 JAN -

LPT SZCK - WON'T COME OUT OF ALARM STATUS WHEN POWERING UP -

10:15 - CALLED DEC -

10:45 checked Printer, Found by hitting it could Cause Alarm. interlock on side door open. I don't Know if this is the major problem - we'll see

JPS DEC

1400 31 JAN 67

POWER CONSUMPTION WITH COMPUTER & TTY'S, DEC type 30 display but NO PRINTER 28A, 44A, & 50A

SRR

31 Jan 67

1600

Analex Printer:

~~Ah~~ Analex arrived to check Printer and install "MULTI-PURPOSE" Power supply, if Necessary.

Found Following problems:

Power input Line on TB 301-1 and Terminal Block were badly burned, resulting in stench Noted on 23 Jan 67.

~~Ah~~ Cleared up wiring & moved to TB 301-2 (unused). checked Current on Multi-purpose Power Supply.

	Running	STATIC
input AC	4.4 Amps	4 Amps
-18V	8.8 Amps	8.0 Amps
+6V	4 Amps	3.9 Amps
-6V	2.1 Amps	2 Amps

Concluded at this time that Power supply, although hot looks O.K.

Problem was Most Probably Poor connection on Terminal Block.

J P [illegible]
D.E.C.

31 for 67

2015

TJY 2

still gins 2

chs for price

of 1.

Weiler

1 Feb. 1415

Line Printer, when given 15, 177, 21

occasionally prints the last 2 chars as 2.

see attached output

Pingb

2 Feb

TRY 2 GIVE

BELLES FOR

PRICE OF

ONE

Werner

NEW VERSION OF COMPLR
WILL NOT WRITE EOF
YOU MUST DO (OUTC MLT)

2000 3 FEB 67

TV CAMERA SUFFERED FROM A SUDDEN LOSS OF SENSITIVITY. NO CLUE AS TO WHY. THE AUTO SENS ADJUSTMENT IS NOW OFF.

LRRussell

6 Feb -

CORE BUGS - CORE 1

INTERMITTENT { J1B27F 1→14 BITS 22-28 CM AB ØA1 BUFFERED → TO P1B27M R, W+Y
J1B28F 1→14 BITS 24-35 ØA1 " → TO P1B28M R, W-X SEL
J1B26F PIN 11 (BIT 5) INTERMITTENT
1BC11 K (BIT 5) BROKEN WIRE -

CORE 1 NOW OPERATES, BUT WILL DROP BITS INTERMITTENTLY IF CONNECTOR 1B26F IS POKED AT -

RAB -

6 FEB 1745

MQ35 NO SHLT; REPLACED 6205 IN 2HJ24.

D.P.

Evidently TT12 gives 2 chns for the price of one ACH.

8 Feb 67 14:00

Core Problems.

Core Ø

J1B26m Cold Solder joints. BIT 7
Resoldered all joints & coated Pins with Mercury.

J1B27m Bad Connection, Pin 4. Resoldered & coated pins with Mercury.

J1B28m Bad Connections. Resoldered all connections on Front Plug.

Core 2

J1B26m Intermittent dropping BIT 2 & 3.
Resoldered Connections.

J. Wm
D.E.C.

10 Feb 67 5:10

The T.V. Camera quit working again. Same bug. I got out the scope & verified that the problem is in the Video assembly Card (Not to be confused with the preamp). The confirmation being that fine high quality Video goes in but doesn't come out. A binary search got me as far as proving that the

problem is in the first half of the circuit (i.e. before Q4).

The fix for the problem when it happens is to turn off the camera. Put the extender card on the Video card. Get out the scope. Turn the camera on. Let it & the scope warm up. And start to trace the bug. The bug will immediately disappear. If you wish the bug to remain gone, leave the scope probes in the camera. In this case the bug will only appear when you are on the other side of the room & will leave as soon as you approach.

P. Pitti

2-16-67

10:00

Clock read June 10

2-10-67

THE DOUBT

LIVES

IN CHIPS

Weiss

9 Feb 67

BAD R401 IC 17 (A-D) CLOCK-

~~Reset~~ Set Clock 3 to 6 Kc using 401 and out of IC 16

(clock 2)

RM

2/10/67 CAMERA LIVES - TROUBLE

WAS $C_\infty \leftarrow C_\infty // 1000\,\Omega$

IN POSITION C_{29} OF VIDEO CARD.

THIS CAUSED BLANK LEVEL TO RISE

TO ABOUT +5V, CUTTING OFF Q8.

WTW

1815 10 FEB 67

VIDEO HAS BEEN RE-BLESSED ON REMOTE

ARR

10:00 11 Feb 67

Several parity errors occurred in core while reading & processing T.V. camera

P. [illegible]

```
MEM AT USER 1
.C

.?
ERRN JOB 0
NON EX MEM AT USER 1
↑C

.

CORE PARITY ERROR, LOCATION 000000117513  OPND = 000002644000
PC = 550000063546  INSTR = 201540000006
PI STATUS = 000000120027  TIME = 843:45


CORE PARITY ERROR, LOCATION 000000106323  OPND = 000002242002
PC = 550000063546  INSTR = 201540000006
PI STATUS = 000000120027  TIME = 845:34


CORE PARITY ERROR, LOCATION 000000115017  OPND = 400040400000
PC = 550000063546  INSTR = 201540000006
PI STATUS = 000000120027  TIME = 848:08


CORE PARITY ERROR, LOCATION 000000116733  OPND = 000000444004
PC = 550000063546  INSTR = 201540000006
PI STATUS = 000000120027  TIME = 849:17
```

1230 11 FEB 69

LINE PATCH 2 ON 630

GIVES GARBELED CHAR ON INPUT.

ARR

12 Feb 2:25

TTTTYY22

GGDTVEE8

CCHARSS

SSTILL

DO OOUBBLEE

Nick

12-Feb-67 10:30

TTY6 has a bad shift key. It will not shift for certain characters (c.f. -/=, N/↑) but will for others (c.f. :/*)

P. Pitti

13-Feb.-67 4:10

To keep from having the machine go down during the day, we installed the IO bus connections + power jumpers to the MTAPE CONTROLL but did not turn the drive on.

P. Pitti

13 feb. 1967

Completed Preventive maint on following model 33 teletypes

Ser. # 53385 replaced 2 gears
33939
34467
37780 replaced 2 gears and 1 platen
52515
34466 replaced platen
30996
53384

Jesse Gonzales

Feb. 14, 1967
22:00

Magtape had 2 bugs:

1. The system would hang in a constant channel 5 break during a backspace.

2. The system would get totally screwed if you asked it to read (the MTape) a record shorter than it really was.

I discovered that there was no wire to pin U of 3D2 (see Motion Delay print, coordinates C7, level MD FRC)

Clip-leading this pin to pin P of 3D25 (see same print A8) cured both bugs.

P. Pitti

P.S. I made the jumper incarnate in teflon wire.

P. Pitti

15 Feb -

Reloaded System - 0830 Ron

16 FEB -

TTY5 OCCASSIONALLY PRINTS "+" FOR ","

R

16 Feb

TTY2 GIVES
DOUBLE
CHARACTERS
STILL!!!

Owner

TTY 5

NO CASE HITS!

---

18 feb

Finally got tired of waiting for someone to fix tty2. Interchanged TTY2 and TTY4

Weber

19 Feb

TTY 1 seems to like to give lots of period after rc.

(2) ~~Ha~~ Vert Hold on TV monitor is bad

Pugh

1058 20 FEB 67

Found TV Camera on AFC & PUT IT ON FR AND IT SUNK without HUNTING, Master Osc. is deliberately put out of adjustment so that the beats with

the computer clock interupts are ~~rapid~~. Frequent.
ARR

20 Feb

TTY2 needs a new ribbon

Pirsh

1800
21 FEB 67

AUDIO INPUT MULTIPLEXER UNIT GOT A RESISTANCE TO GROUND WHEN SELECTED. TRADED A101 with CH 14_8 & 15_8 WHICH I ~~Exp~~ I HOPE AREN'T USED.

IDD

.22 FEB.

```
CORE PARITY ERROR, LOCATION 000000053747  OPND = 000000033746
PC = 750000021775  INSTR = 202101000000
PI STATUS = 000000120137  TIME = 232:14
```

1750 22 Feb

Analex printer hangs up trying to print after first word or so prnted

SRR

22 Feb.

Repaired printer (teletype) #1 + 4
Double triping keyhed #4 N.C.
2 hrs on #1 tested by Bill and O.K.
J Gonzales

2330 22 FEB

Printer troubles was intermittent
4301 delay in DEC printer controler A13
It was sensitive to Twisting. Rebolded
some suspicions joints on the module.
Printer works

SRR

23 Feb

Crock think it June 23
Weiher

23 Feb

See TTY2 NOT WORK. SEE, SEE, SEE, LOOK, LOOK, LOOK LOOK AND SEE.
SEE TTY2 LOSE.

OWerher

```
00100    TITLE SETBTS
00200    IN\\ENTRY SETBTS
00300    ;COMMENT CALLED WITH\\\\AS CALL SETB
;COMMENT CALLED AS   CALL SETBTS (TO,SZ,RHB,
00400    ;WILL TAKE THE RIGHT-HAND MOST SZ BI
00500    ;THEM IN TO SO THAT THE RIGHT-MOST
00600    ;BIT RHB. ALL OTHER BITS ARE UNCHAN
0 0700     ;FROM LEFT TO RIGHT
00800
00900    SETBTS: HRR 0,(16)        ;GET ADDR
0 1000

*I.
00900    SETBTS: 0
01000            HRR 0,(16)        ;GET ADDR
0 1100            LDB 0,BP1         ;SET SIZ
01200            EXCH 17,@2(16)    ;GET POSI
01300            SUBI 17,^D35      ;GET INTO
01400            MOVNS 17
```

25 Feb 67
TTY4 gives double characters

MCR

26-FEB-67 2250

Mag tape sometimes thinks a tape with a write ring is in write lock. Kicking it often helps. If that doesn't demount the tape and mount it again, FORCEFULLY.

J. Sauter

27-FEB-67 0242:09

PARITY ERROR 72515. bit 15 was dropped (it was a Lisp atom).

0400 27 Feb 67

~~tele~~ CONSOLE ~~TTO~~ TTY PIA

OBETS OCCASIONALLY CLEARED OR SET TO 1 instead of 5

LRR

1-MAR-67 1320:03

PARITY ERROR 70045. Suspect Bit 15 again.

J. Sauter

1-MAR-67 2000

clock says Sept + year invalid

J. Sauter

3-MAR-67 0140

System died in CHS. When reloaded got a "PARITY ERROR -- LOCATION INDETERMINATE".

J. Sauter

3-Mar-67 9:00

TTY 0 GARBLES CHARACTERS

3-3-67 B. Leonard

TN2 adjusted left hand margin

TTY 4 Return adjusted & Double Kybrd Tripping

D Gonzales
TTY Repairman

~~3-5-67~~

~~line patch 2~~ ?

3-5-67

DTA5 has cooky trouble

D Weiner

3-5-67 - 2350

TTY2 INVENTS, GARBLES, AND DROPS CHARACTERS (ON INPUT).

D. Poole

3-6-67 0500

I agree. J. Sauter

TTY1 multiple character

J. A.

3/7/67 "TOP OF FORM" Button on front on Line printer stuck in "up" position. Back button works.

Lawrence

TTYØ prints characters on top of one another

Ken Siler

0859 8 Mar 67

Top of Form button works for me, now

SRR

0920 8 Mar 67

tested dectapes

delays as timed by program are

38.6 MS
183 MS
308 MS

OK

adjusted start + stop delays on all Dectape drives. according to manual

SRR.

1150 8 Mar 67

LPT is giving spurious spaces.
about 1 per page

ARR

1130 9 Mar 67

TTY Ø has trouble typing "S" and "T"
~~together~~

Pinfo

1130 9 MAR 67

TTY 2 HAS BEEN CLEANED-UP (DISTRIBUTOR)
AND SEEMS TO BE FINE NOW

RANDY

TTY 4 HAD BEEN WIRED WRONG
WORKS NOW RANY

1200 10 Mar

DTA2 slips

Pinfo

1400 10 MAR

LPT NOW HAS MOD II LIGHT SOURCE
#222 PRE FOCUS LAMP + 3V BATTERY
BATT. WAS OLD SO WHEN ITS
GONE USE THE LITTLE RICO SUPPLY.
LIGHT SOURCE SEEMS BETTER, LESS RUGGED
BUT LESTER WANTS DEC TO FIX IT
SO ITS IN LIMBO NOW
SORT OF WORKS

RANDY

1150

MAR 80

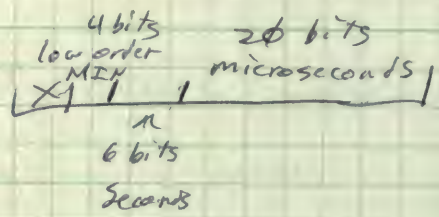
IOTS TO Devices numbered 700 or above are now legal in user mode. See drawing EX.

Clock is now device 730

CONI to 730 gets microsecond and second count

DATAI gets slower part as before.

Format (CONI):



R. Rit

1545

Kept getting device input error from DTA3.
Tape read correctly on any other drive

Hal

CORE PARITY ERROR, LOCATION 000000022020 OPND = 174771204034
PC = 750000021602 INSTR = 200040000015
PI STATUS = 000000120027 TIME = 1422:12

CORE PARITY ERROR, LOCATION 000000022010 OPND = 175477204035
PC = 750000020743 INSTR = 202000001121
PI STATUS = 000000120027 TIME = 1422:30

FRIDAY 10 MAR 67

R

16 MARCH
TTY Ø FAILS TO PRINT SOME LETTERS SOMETIMES,
G, S, A, N NOTICED.
Bruce Buchanan

1150

MAR 80

IOTS TO Devices numbered 700
or above are now legal in user
mode. See drawing E V

1545

Kept getting device input error from DTA3.
Tape read correctly on any other drive

Pagle

13 MAR
TTY Ø won't print /s .. right
---- prints /T....
also gives double characters —

M. Kahn

13 MAR REPLACED LINE CODE LAMP ASSY
PRINTER UP ALR.

16 MARCH
TTY Ø FAILS TO PRINT SOME LETTERS SOMETIMES,
G, S, A, N NOTICED.
Bruce Buchanan

17 MARCH 67 11:30 AM

TAPE READER BLEW A FUSE ON ITS BACK PANEL AND SMELLED BAD, SHUT DOWN AT 10:15 — BACK UP AT 11:20

SEEMS THAT ONE OF THE LINE FILTERS SHORTED OUT, GO HOT, AND STARTED TO LEAK OIL ALL OVER

BYPASSED FILTERS AND CLEANED UP UNIT

WILL REPLACE AS SOON AS IN STOCK

PULSED DEC; OF THE FACT THAT WE HAVE NO MAINT. BOOK ON THE READER

RONDY

1340 17 Mar 67

Printer tripped 10A "Printer" breaker. Reset it. It work OK

AR Russell

2400 19 Mar 67

Reset tension on printer ribbon to max. in the hope of getting ribbons to last longer. Time will tell.

AR Russell

~~1720 20 MAR~~

~~(ZEROP 0.0)~~

5:40 21-mar-67

The ribbon on the printer stopped altogether several times & had to be started with the crank.

LOSE LOSE LOSE

0915 21 MAR 67

PRINTER WON'T COME UP.

DRIVE MOTOR WON'T TURN DRUM ETC.

TRIPS ITS BREAKER AFTER A FEW SEC.

LRRussell

21 MAR 67

TTY1 NOT FAITHFUL. R

22 Mar - 10 AM

Mag Tape errors - can't read records written in DR mode except for the first few.

Ray Reddy

MARCH 22 67

TTY 1 HAS BEEN CLEANED UP (DISTRIBUTOR & KEY BOARD CONTACTS) AND OILED

SEEM OKAY NOW

RANDY

MARCH 23 67 0845

RAN TS MAIN FOR 30 MIN:

ALL SEEMED OKAY

RANDY

+ AUTO BLT 1030 WHILE NO-ONE WAS ON FOR 30 MIN:

IT TOO RAN FINE

RANDY

MARCH 27 67 09---- 1000

	CORE 0	1	2	3
MICRO CHEK: SA MARGINS	-9	-8.5	-9.5	-9
DRIVERS, SELECTORS, TIMING	±10	±10	±10	±10
	±10	±10	±10	±10

AUTO BLT: 30 MIN RAN FINE

HIGH SPEED MEM CHEK:	OK	OK	OK	OK - NO ERRORS

MICRO CHEK: BAD SHEET'S -5 +2.5 — - - - - - - - -

MARGINS -15

6684'S	-3+7	-3+7	-3+7	-3+7

→

IN RUNNING THE MARGINS
WE FOUND THAT ALL CORE MODULES ARE
LOW ON + ← -15 AND - ← +10
ON THE FOLLOWING:
IF YOU MARGIN THE BED SHEET BOARDS

YOU GET GOOD +10MAR BUT ON -15
IT WILL FAIL AT ABOUT -12V ON ALL OF CORE
IF YOU MAR. THE 6684'S +10 ON THE SWITCH
IN EACH CORE BOX YOU GET -3 ↔ +7
SEEMS LOW BUT THEY SEEM TO WORK.
ALL ARE THE SAME

RANDY

1425 27 MAR 67
MONY PARITY ERRORS IN CORE 3
CLEARED CORE 3 & IT WENT AWAY!

DRR

3/28/67 2115

Line patch 2 garbles characters on input.

J. Sauter

29 Mar 67 2300

MUCH TROUBLE WITH CORE ZERO.
PIN 27 OF 1J15 (ON BACK OF MEM STACK)
IS EXTREMELY MARGINAL. THERE ARE ALSO
TROUBLES WITH DROPPED ~~LEFT~~ RT 1/2 WD WHEN
BITS 29 30 + 31 of address are all zero.
CHANGED 1664's with core 4 and
de-interleaved. 167 & TV camera won't
work.

ARR & JRB.

30 Mar 67 1400
Found broken wire on pin K of 1L16.
Resoldered and right half of words came back.

P. Petit

29 March 67
Broke above wire with current probe

30 MAR 67 — R

SEE "MANUAL PRINT" LIGHT & TAPE "ON/OFF" LITE

ARE THOSE BULBS OF DIFFERENT VOLTAGE RATINGS? IF YES, WHY? IF NO, WHY ARE THEY OF VARYING BRIGHTNESS?

3-30-67 R

I THINK THEY ARE IN SERIES? — — —

RANDY 3/31/67.

A Scorpion has been connected up beside The DEC scope. The Three push buttons may be read in with The spacewar buttons. They set bits 24, 25 and 26 when pushed.

The Three joints are connected to The multiplexor and AD as follows:

shoulder channel 22
elbow channel 23
wrist channel 24

LOU Paul.

IT WORKS — — — — —

3-31-67 1100

PARITY ERROR LOC 24074

CHECKED THE BOX'S, BUS ETC. RANDY

BUT TROUBLE WENT AWAY BEFORE I FOUND ANYTHING

RANDY

2245 3-31-67

Box Ø giving several parity errors at 24Ø74.

J. Sauter

4-2-67 15:15

Ran Autobit to try to fix parity (box Ø) problem. Bit 19 kept being in error (on & shouldn't be). I considered it likely that the error was in the inhibit driver (since the bit was <u>on</u>). Majic address analysis indicated it was the section driving quad 2. Anyway the appropriate driver is 2K6. I exchanged it with 2K5 (bit 18). The "bit in error" immediately changed to 18. I replaced the module (a 1998) and the parity errors & bit goinings went away.

P. Pe[illegible]

4-3-67 0230 AM

SEVERAL CORE PARITY ERRORS

LOC INDETERM:

RANDY

4-3-67 930 AM

The following have been noted thus far this morning

1) TTY2 when you give edit 2 a CR sometimes the teletype only echos a line feed and the next line has all the characters typed on top of each other (see sample)

2) the following DEC tapes need brake adjustments DTA4, DTA1

3) DTA1 slips badly

Randy

4-3-67 1800 DTA 1 - 8 HAVE BEEN CHECKED AND THE STOP TIMES ADJUSTED ALL REPONDED EXCEPTED DTA-8, THE LGSA POT SEEMED OUT OF RANGE.

IF TROUBLE IS HAD THE UNITE WILL HAVE TO BE TAKEN OUT FOR A V CHECK

RANDY

~~3-4~~ APR 3 '67 1322

Paper tape punch tends
to tear paper tape.

J. Sauter

4/3/67 TURRET MOTOR BLEW 1/10 A FUSE.
NOW HAS 1/4 A FUSE - WE OUGHT TO
GET & INSTALL THE RIGHT ONE.
FUSE LIVES NEXT TO TURRET
ON RIGHT SIDE.

WJM

4/3/67 PUNCH HAS BEEN FIXED —
SOMEONE FAILED TO EMPTY IT AND
THE ~~X~~ CHUTE AND ~~X~~ PUNCH BLOCKS WERE
JAMMED

RANDY

4/3/67 PEOPLE HAVE BEEN COMPLAINING ABOUT
LOOSE REELS ON THE DECTAPE UNITES.
I MEASURED THE HUB AND SOME REELS
WITH A CALIPERS AND FOUND THE HUB
IS SET AT A ~~[illegible]~~ REASONABLE TENSION
BUT IF I SET IT WIDER, 70% OF THE
REELS WONT COME OFF →

SO IT STAYS THE WAY IT IS
IF YOU HAVE LOOSE REELS SEE
ME FOR A REPLACE--MENT OR CHECK

P.S. BRING IT TO MY ATTN:
BEFORE OR AFTER YOU USE IT.
OKAY

RANDY

4-4-67 7:00

The machine will not run the loader:

```
.R LOADER 30
*/DDTA2:BIN?
ERROR IN JOB 1
ILL MEM REF AT USER 1222
↑C

.
```

The result is the same regardless of tape drive unit is on, system loaded (2.8/05C or 2.8/03B), Job num, etc. Appears to be hardware problem.

I deinterleaved and things run fine. I reinterleaved & same problem. I deinterleave & it runs fine so I leave deinterleaved.

[illegible]

4-4-67 9:00

IF PEOPLE WISH TO POKE AT MACHINE
PLEASE KEEP PLENUM DOORS SHUT WHEN
THEY

R

4-4-67

THERE IS A FUNNY ALGORITHM
FOR TERMINALS MOUNTED ON RACK PANELS
IN THE PDP-6; AS FOLLOWS:

SCREW TERM. IF TOP OF PANEL ADD 100 TO MOD SPACE
ITS OVER

" BOTTOM " " " 130 " " " " UNDER

CHOC. BLOC. TOP HORIZ. ADD 60 TO FIRST SPACE
ITS OVER, LEFT JUSTIFIED.

CHOC. BLOC. BOTTOM HORIZ " 80 " " "
ITS UNDER, RIGHT JUSTIFIED

CHOC. BLOC. VERT. ADD 30 TO MOD SPACE IT
COVERS.

RANDY

→

4-5-67 9:00

Many parity errors. Ran blt.
~~the~~ problem in bit 25. Interchanged
1H7 with 1H8 in core Ø (sense amps).
Problem went away.

P. [illegible]

4-4-67 Bug on 4-5-67 9:00

→ CORE (1) WAS IN LOOSE MODE
RH + LH'S WERE BEING DROPPED
+ SOME LOC/P WERE LOOSING RANDOM BITS

+ CORE (0) LOC 14000 WAS PICKING UP AND
DROPPING BIT 25.

CORE "1" Bug

① THE BALUN BOARDS SEEMED TOUCHY TO
VIBRATIONS SO THEY WERE REMOVED
AND ALL PINS WERE CLEANED + SOCKETS WERE
WIPED OUT.
THIS SEEMED TO STOP HALF WORD ERRORS

② IT WAS NOTED THAT LOC/S IN CORE Y'
WITH BIT 31 U) WERE LOOSING RANDOM BITS
IN FULL WORD. AFTER MANY MAN HOURS IT WAS
FOUND THAT THE CMAB CARD "6102R" (1D4)
WHICH CONTAINED BIT 31 WAS → ON T+V FOR
31 U). THIS IS BAD. NEW CARD WAS CURE
OF DOUBLE SELECTION AND CORE "1" THEN
WORKED →

CORE "0" BUG 1800 4-4-67

IN RUNNING DIAGNOSTICS FOR CORE "1"
IT WAS NOTED THAT BIT 25 IN CORE "0"
WAS LOOSING BAD SO SA'S WERE SWAPPED
WITH 24 1H8 1H7

+ INHIB. DRIVERS IN 2K11 2K12

IT DIDN'T WORK AS PHIL SAID THAT
BIT 25 WAS BAD THIS MORNING
AND DID SAME THING* SO
WE ARE BACK WHERE WE STARTED

Randy

* SEE PHIL'S NOTE
← PAGE

4-5-67 1:15

CORE "0" DIED IN TE TIMING CHAIN
TWICE BUT WOULDN'T REAPPEAR WHEN I POKED
AT IT
PULSES LOOKED GOOD ?

Randy

P.S. IT LOOKED LIKE T2 DIDN'T HAPPEN

4-5-67 16:00

MORE ON CORE:

I INTERCHANGED 166~~8~~4 IN CORE 0 & 1
AND RAN HIGH SPEED CHECKER BOARD IN
CORE "0" NO BUGS ON MARGINS UNTILL
I CHANGED PATTERN, 11 (1) IS WORST CASE FOR
CORE "1" 11 (0) IS WORST FOR CORE "0"
I.E. 10 — 17 (0)'S IN CORE 0
THE BUG THAT I FOUND WAS:

BIT 24 WOULD GO AWAY UNDER CERTAIN
CONDITIONS OF BITPATTERNS
I LOOK AT THE SA IN IHT IN CORE
"0" AND IT OUTPUT REFECTED THE DIAGNOSTIC'S
REPLY
CALLED DEC AND GOT LAST SA IN STOCK
SEEM'S OKAY NOW.
MORE:
BEWARE WHEN MARGINS ON 1F & 1H + 10B ARE
USED; THAT LINE IS ALSO CONNECTED TO PART
OF CORE CONTROL LOGIC TIMEING CHAIN.
DON'T KNOW WHY BUT JUST THAT LINE

→

IT EXPLAINS WHY THE CHAIN DIED ON SA'S MARGINS

THIS MORNING THE MARGINS ON CORE WERE:

0	1	2	3
+ 10	+10	+10	+10
- 7.5 TO 8	-10	-10	-10

THIS AFTERNOON WITH CHECKER BOARD IN 1, RUNNING IN "0" "0"

+ 9

- 7

AFTER ADJUSTING INAIB AND SLICE TO BAL MARGINS, THEY WERE, UNDER ABOVE CIR. AS FOLLOWS: + CHANGED SA IN 1A7

"0"
+ 11

- 10 OFF SCALE

CORE IS NOW BACK THE RIGHT
1664'S ARE NOW WAY BACK IN THE PROPER BOXES

2237 5 APR 67

INS TEST PART 2 COMPLAINED ASHC, I DIDN'T WORK.

~~LOOKED~~ INVESTIGATION SHOWED THAT SETZM really didn't work if I'd had just come from the location.

Bug was very timing sensitive:

Replaced bit 6 in AR

no change

Heated MEM BUS TERMINATORS IN CORE 4

Bug went away

Ran TS MAIN for 2 hr

Ran BLT for 4 min.

all OK

Only change is bit 6 which is too much work to change back, and terminators seated properly.

More ☹ bug fixed this aft.

All of the last weeks troubles have had ~~change~~ relevant changes they all should be fixed.

GO PHIL!

LRR

1400 6 APR 66

TTY2 hangs up and won't space after a carriage return sometimes.

MAGTAPE unit seems to be missing ends of file and possibly data in low slice level

Line printer give spurious spaces

ARR

4-6-67

NOTES ON CORE MARGINS

HOW TO TUNE CORE (R/W & INHIB CURRENTS)

LOAD HIGH SPEED CHECKERBOARD 622A

SA 100

D.S. ~~ALL~~ ALL BITS OFF EXCEPT 20, 21 TO SPECIFY CORE BOX.

YOU HAVE OPTION ON NOISE PATTERNS, BITS 11 + 17

$11^{(0)}$	$17^{(0)}$	CORE	"0"
$11^{(1)}$	$17^{(0)}$	"	"1"
$11^{(0)}$	$17^{(0)}$	"	2
$11^{(0)}$	$17^{(0)}$	"	3

THESE ARE WOST CASE FOR OUR MODULES

PLEASE READ WRITE UP SO YOU WONT
MUNG IT ALL UP

START PROG.

IF YOU READ FOLLOWING THE TTY BELL WILL
RING ON ERRORS. IF IT HALTED PUT BIT 1 OFF
IN D.S. AND CONTINUE —

NOW! INST. SP.

PUT RACK 1F & 1H +10A, +10B ON MARGINS
IN THE MODULE SELECTED AND SET MARGIN CONTROL
APPROPRITLY

INST. CONTINUE

START DROPPING +10 TOWARD 0
IT SHOULD RUN ATLEAST TO 8.75V LOW BEFORE
BELLS SOUND
NOTE SINCE +10B ON THE TWO RACKS NAMED HAVE
SOME OF CORE CONTROL LOGIC IN THEM, IT WILL FAIL
IN ONE OF TWO WAYS

1. BELL WILL RING FOR 15 SEC AND REPEAT EVERY 30 SEC.
   THIS MEANS BITS COMING AND going.
2. OR CORE WILL HANG

→

IF #1 HAPPENS BEFORE YOU GET TO 8V LOW

STOP PROG

PUT STOP ON ERROR ON PN PARITY BOX

LOOP → RESTART AT 100 WITH MARGINS BACK TO +10 ON MARGIN CONTROL AND START DROPPING THEM AGAIN

THIS TIME YOU SHOULD STOP ON THE ERROR ADR WITH PMBR CONTAINING BAD WORD.

IT SHOULD BE ALL ONE'S OR ALL ZERO'S NOTHING ELSE. ~~IF IT'S ALL SEEM~~ IF WORD IS SO MESSED UP THAT YOU DON'T KNOW WHAT IT SHOULD HAVE BEEN, EXAMINE LOC/2 FOR IT CONTAINES AT THIS TIME THE PROPER WORD

IF ONLY A FEW BITS ARE BAD DO FOLLOWING:

IF UP TO 3 BITS WERE DROPPED FROM -1 WORD

CHECK SA'S FOR THOSE BITS INVOLVED

IF MORE THEN 3 LOWER R/W CURRENT

NO MORE THAN 1/4 TURN CCW ON BACK BAY AT A TIME

TAKE CARE TO CLEAR ERROR ON PARITY BOX AND TRY AGAIN FROM (LOOP) ONLY DEPRESS CONTINUE THIS TIME. 1/4 TURN LOWERS R/W CURRENT BY APPROXIMATELY 5 MA.

SO IF YOU HAVE TO LOWER BY MORE THAN 1 1/2 TURNS CHECK SA STRB TIMEING

IMPORTANT

REMEMBER WHERE POT SETTING WAS SO YOU CAN RETURN TO IT IF YOU HAVE TO

IF UP TO 3 BITS WERE PICKED UP IN A Ø LOC.
CHECK INHIBIT DRIVER FOR BITS INVOLVED
IF MORE THAN 3 BITS, RAISE INHIB CURRENT

NO MORE THAN 1/2 TURN CW ON BACK BAY AT A TIME

CONTINUE ON AS NOTED

THE LIMIT ON INHIB CURRENT ADJUST IS ABOUT 4 TURNS MONITOR VOLTAGE ON FRONT OF BAY DO NOT GO HIGHER THAN 60V.

TO RAISE HIGH MARGINS THE INVERSE IS TRUE ON ALL OF INFO GIVEN THUS FAR

SUMMARY:

LOW MARGINS	IN	BIT	LOOSE MODE	↓	R/W CURRENT
"	"	"	" PICK UP "	↑	INHIB " *
HIGH MARGINS	"	"	LOOSE MODE	↑	R/W CURRENT *
"	"	"	" PICK UP "	↓	INHIB "

* LIMITS R/W 300 MA / INHIB 60V / IF YOU MAKE IT MORE YOU BOUGHT THE CORE

NOW HOPEFULLY YOU HAVE ATLEAST A 18-20V SWING ON MARGINS.

TO BALANCE ABOUT +10V ADJUST SA'S SLICE LEVEL TO TUNE FOR MAX BAL.

IF #2 HAPPENS BEFORE YOU GOT TO -8 OR +8 FORGET TUNING CORE UNTILL YOU GET CORE CONTROL LOGIC TO WORK BETTER

SINCE R/W & INHIB CURRENT INTERACT ON BOTH LOW + HIGH ENDS, WORK SLOWLY AND CAREFULLY AND HAVE FUN

RANDY

P.S. SINCE PROG. RUNS IN CORE "0"
YOU HAVE TO MAKE ANOTHER CORE BOX, "0"
TO CHECK THE REAL CORE BOX "0"
CLEAR ISN'T IT.

4-6-67
CHANGED PRINTER LINE PULSE LAMP ASSY. A.L.R.

SAT 8 APR 67
MAG TAPE DRIVE WON'T LOAD. I FIXED SAME
WITH A SIGN STATING THAT THE DRIVE IS DOWN.
R

9 APR 67
TTY1 gives double characters
D. Swinehart