

INTEGRITY

# RECORD

*R Bohlmann NASA-KSC  
LS-ENG-52*

7530-286-6945  
FEDERAL SUPPLY SERVICE

(GPO)



Dick 267-9337  
DAVE 783-0282

STC OFFICE 6463  
Schedule Room 5486

Clyde Haddock Holiday Inn Rm 229

	7728
WEBB - NQC	7603
Gammill "	9828
Hammonds "	9826

Gil Whalen Home Phone 267-8288



-7728

TCP-KL-6006 GCTA Qual Unit

1-8-71 IDR #1 - 100ft LM cable connectors  
close labeled incorrectly - Transferred to DR MFS-0021 LM10

close needs redesign IDR #2 CTV mounting lock not latched fully

Note - The shorter the pulse the higher the temp - Use 12 uSec as limit when becoming too warm.

IDR 003 1. step 004-013

Time for tilt down was 36 sec. Spec 37-47 sec

2. Step 004-014 when transmit 3214 initiated - camera would not tilt up

IDR 004 seq 004-017

IRIS open in 9.9 SIB 13-17 sec  
Gear Ratio problem

close



TCP KL-0041 (EM-2 unit)

4-13-71 John Miller Winslow Beach Apt  
Apt 12 783-8467 closed at 8 pm.

Charlie Coe Roma Inn  
Rm 270 783-9991

Don Weber 262-2850

Andy Anderson Roma Inn 783-9991

closed  
IDR #1 Transferred to DR 008 against  
GSE (GS-LCRU-NA). W17 connector  
could not be mated when installed  
on flange plate. Use as loose  
cable.

4-14-71 Powered LCRU up at 11:00  
Note - No P numbers on  
Flight Y cable

4-14-71

closed  
IDR #2 5-Band RCVR squelch 1.7 dB too  
high. Tightened loose connectors.  
Rechecked squelch and was ok.

- Note - LCRU meter Reading for  
TEMP at 3.1 volts is  
about 100°F (our max operating temp)



4-17-71

0091 cont'd

Close to LCRN DR inherent in LCRN

IDR # 3 Seq 003-021 SS 02  
With -100.3 dbm at S-Band Diplexer VHF XMTR came on. Did not occur at other RF levels immediately above and below. suspect bad GSE att port?

4-15-71

IDR # 4 Seq 003-049 SS 04

The 70 KHz signal out of LCRN to GCTA did not increase in level sufficiently when 70 KC was applied to U/L GSE XMTR.

Recorded 2.9 db spec NLT 10 db

IDR # 5 Seq 003-071 SS 02

Close DR against VHF part GSE

While superimposing of signals, it was noticed that the VHF Freq shifted. Shifted from XTAL to VFO on Rec 10A4. This corrected the problem. Same when crystal heater comes on the frequency shifts.

IDR # 6 Sig 004-008 SS 03

closed by Dev

S-Band XMTR (PM/WO) power out reads 36.4 dbm SIB NLT 37.4 dbm. Corrected ILP reads ok



0041 cont'd

4-15-71

IDR #7 Seg 004-026

Freq out of Tol

Closed  
DR D-1-0052Found Intermittent  $\gamma$  cable (video  
line) DR'd  $\gamma$  cable.

IDR #8 Seg 004-026

Close  
DR against  
LCRUFreq still low with proper  
Bias.IDR #9 Seg 04-070 mod on  $\odot$  VHF

Sig Gen dropped off.

Hold open  
further  
T/S 4-17-71(These mod specs are very  
tight). Calibrating on new  
Gen. New Gen  $V$  is unstable  
at  $-88$  dbm (at LCRU) and becomes  
stable at  $\uparrow$  approx  $-65$  dbm (at LCRU).



IDR #10

TCP-K6-0041

4/15/71

Seq 004-099

Rad VPP out of limits

S/B 0.408 - 0.612 was 0.032

Additional Discrepancies Are Indicated  
in Procedure

IDR #11

TCP-K6-0041

4/16/71

Seq 006-042

Can Not Get Locked Image  
ON TV MONITOR.

IDR #12 Using the 10ft cable, the  
commands to the camera  
resulted in reversed functions.  
The problem per Anderson RCA  
was associated with another  
DR on corative motor drive  
responses.



TCP - RL - 0053

4-19-71  
10:00

1st Run with no flite de-ussure  
Wrote dev to run continuity  
check on Flite X cable on LRV.  
(EMI FEC phone 8550 John Grove - day  
shift only)

IDR #1  
15B

Seq 002-004 Blower getting hot,  
Turned it off. They looked  
it to the 220 V S/B 110V

IDR #2 Seq 003-004

Some break-up on the 19.5  
and Plus data. Comm lab  
saw very little (insignificant).

IDR #3 Seq 003-006

GMIL reported 15 dB drop  
in TRP

5917 GMIL Phone at site

IDR #4 Seq 003-020

No 1.25 subCar in FM/TV

IDR #5

Seq 003-041, 003-043 No GO  
DATA Drop Outs in PM1/ND  
(see IDR #2)



IDR#6

Seq 004-013  
DATA NO 50 (Drop out of  
Data During Voice Transmission)  
Power Running.

IDR#7

Seq 004-022  
GMIL REPORTS DATA PRESENT  
~~FROM EVIC~~ ON EVIC 2  
DISCRIMATORS.  
(EVIC 2 is in Mode P)



~~TOP SECRET~~~~SECRET~~~~TOP SECRET~~~~SECRET~~

## Re Run

- Seq 003-002 30% Loss OF PAM  
EKG Noise (IDR 02)
- 003-006 DATA GO (IDR 03)
- 003-017 30% Break up OF PAM  
EKG Noise (IDR 02)
- 003-023 DATA GO  
TV NO GO (IDR 04)
- 003-045 EVC-1 DATA Drop  
OUT During Voice Xmission.
- 004-012 DATA Drop out during  
Rover Running at 10KMS/Hr.

IDR#8 1,25 SCO DK 5'LM was  
noisy seq 04-173 this  
was intermittent. This  
correlated with a vacuum  
cleaner. Other interference  
was also noted



TCP KL-0053

Flt Units

4-20-71

Run #2

1415 Call to station

Run base line using  
LRV power except  
for initial set-up.

1500 IDR#1 Seq 003-004

PLSS EKG is no go

VHF Direct also no go  
with LCRU off.

Cleaned up just prior  
to seq 003-005 while or just  
after PLS was switching  
mod on & off on Bio med  
Sim

IDR#2 " Selector SW on LCRU  
does not line up

SFR 04-04/505 1m POWERING UP



Fm

4793 ②

2265.5

~~2265.5~~  
2265.4952 ③

2265.4875 ①

2265.5 4 1/2 mH

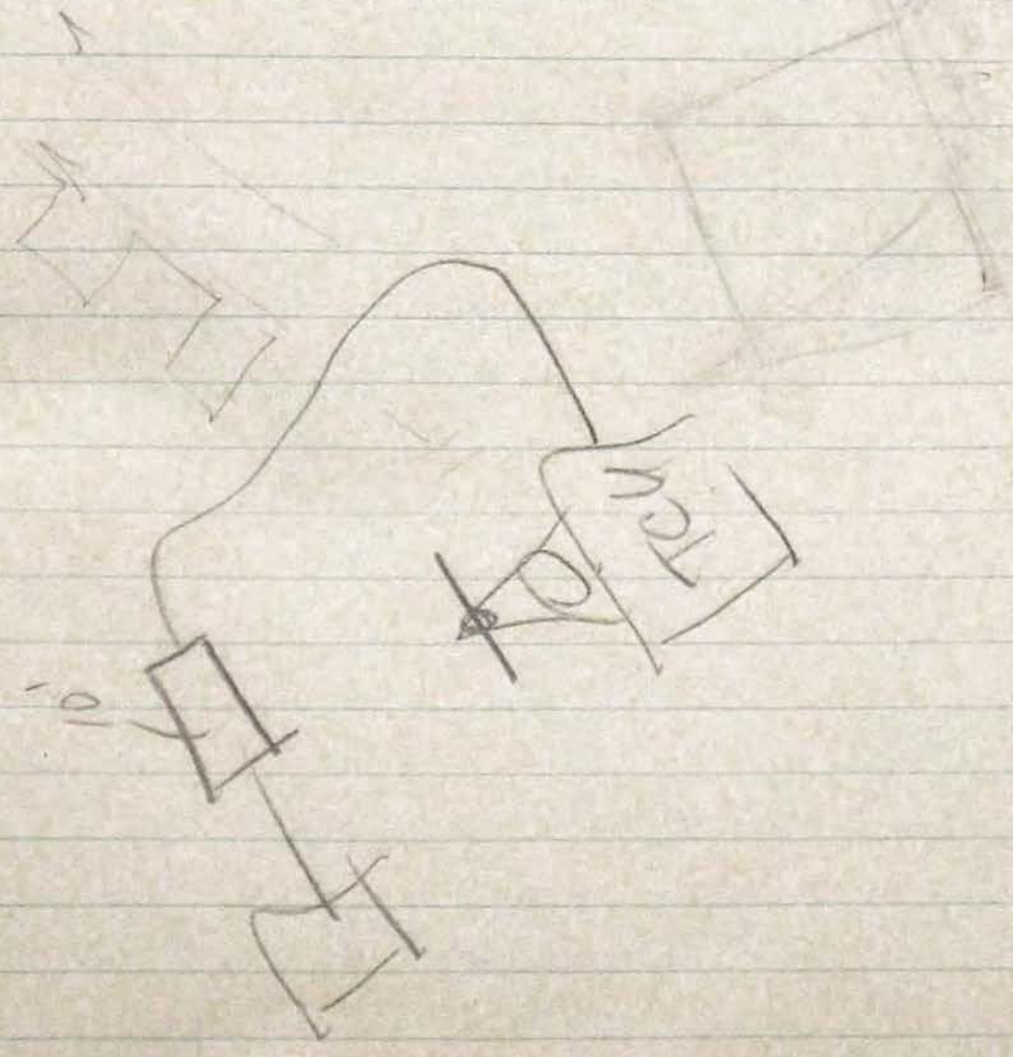
EM

2265.4432

AF 4mH total 2265.7684

2265.4612

2265





Dave - For OOA3 Mission  
Sim - we have agreement between  
MSC, RCA, Me, etc that we will  
use the LCRU EM-2 (with its  
Hi Gain and Lo Gain antennas) and  
the Flite GCTA. The GFE Bond  
Room paper may need some  
straightening since NASA TPS was  
used for non-flight hardware  
and a GAC TPS was used  
for the Flite hardware.



TCP-KK-0013

IDR #1 LCRV Batt low  
changed Batt

IDR #2 PLSS Batt's low



5-24-71 Flight No 1 GCTA

GCTA Assy P/N 2265826 S/N 004

CTV 2265840-501 S/N 009

TCU <sup>42"</sup> 2265825-501 S/N 004

(~~32"~~ cable part of TCU)

Master "Y" Cable (Flight but not for Apollo 13)

P/N 8670957-502 S/N ~~3012~~ 3012

Antenna Handling Fixture (GTO)

HGA 8371851-501 S/N 0001

LGA 8371852-501 S/N 0001

LCRU Flight No 1

P/N 8370854-502 S/N 3001

Test Adpter with LCRU (GTO)

8779383-501 S/N 3002

Ancillary Stowage Container Flt No 1

8370857-502 S/N 3001

Container 8670958-501 S/N 3001

LGA with staff 8670994-502 S/N 3001

HGA 8370891-502 S/N 3001



5-24-70

6006 Flite #1 GCTA

Page 2-12

Invalid Commands

IDR #1

35010000 moves camera  
pan left. Repeated 3 times.

3504 and 3502 causes camera  
to pan right and stops.

3511, 3512, and 3514 and  
camera responded.

Used another GSE Command  
Unit. The problem was ~~re~~  
repeated. Camera did not respond to 3901.

Talked to Bill Perry - he's  
checking into the problem.

Meantime we plan to  
finish 6006 and then  
do additional T/S if  
we can come up with  
anything. Also talking  
to RCA plant. Bill Perry  
says ok to use CTV in  
0045 if we can't resolve  
problem tonight.



Seq 004-017 IRIS Open and IRIS Close was  
IDR #2 12 sec. Repeated it again. S/B 13-17 sec



TCP HL 0041

5/26/71 IDR 01

Seq 002-052-03

In The TV/RMT Mode The Power Consumed read 15.2 Watts. Spec 12.0 to 15.0 Watts

Measured Input resistance of GCTM simulator

J1 Pins 1 & 2 220 $\Omega$

J1 Pins 6 & 8 44 $\Omega$

5/27/71 IDR 02 TCP-IL-0041 Seq. 003-008

VHF PWR is 27.9 dBm S/B 25.4 dBm

ILP Was 22.8 We Rerun ILP And

It came out 27.4 Giving A

VHF PWR READING OF 26.5 dBm

5/27/71 IDR 03 TCP-IL-0041 Seq. 03-016

RF Level is -98.8 dBm. S/B NMT -99 dBm

ILP Was 41.8 We Rerun the ILP And

It came Out to be 41.9 dBm.



5/27/71

IDR 04 Seq 003-021  
 VHF XMTR ACTIVATED MOMENTARILY  
 AT -98.8 DBM. XMTR IS NOT SUPPOSED  
 TO COME ON. Same thing happened  
 DURING EMZ TESTING. (IDR THAT TIME <sup>WAS</sup> TRANSFERRED  
 TO A DR AGAINST EMZ)

5/27/71

IDR 05 Seq 007-051  
 1.25 MC SCO FREQ IS 1.244674  
 S/B 1.246875 to 1.253125 MHz  
 Closed Per Dev 28 Which calls for a particular  
 crystal to be used in each S-band Receiver.

5/27/71

IDR 06 Seq 003-073  
 Same AS IDR 03 <sup>EXCEPT</sup> THIS IS ON THE  
 LO GAIN RECEIVER

5/27/71

IDR 07 Seq 003-078  
 Same AS IDR 9 EXCEPT THIS IS  
 ON THE LO GAIN RECEIVER.



5-27-71 TCP 0041

Seq 004-071

IDR#8

1 KHz level S/B 1 to 1.7 V P-P  
was varying 1.5 to 3.0 V P-P

Sand-pile test VHF was  
interfering. Essentially stopped  
testing ~~it~~ and went to T/S.

IDR#5

Found wrong crystal in FM  
receiver. Rechecking tests that  
need to be retested. New reading  
is 1.252261 MHz

IDR#1

T/S

Reconfigured for step 02-051  
read 15.36 watts. (at 32 VDC)

Turned SCO off  
read 14.9 watts

Turned 70 KHz on  
no difference

at 36 VDC's at 4A VDC = 13.86 watts

Residual seq 002-031

Int Pwr 16.8 VDC 5.46 watts

29.0 VDC 4.55 watts

All Power readings in TV/RMT must be made  
with SCO on GCTAS, in.



26 MAY '71

5-28-71

TCP-0041

IDR # 14 step 006-023

Voice modulates 14.5 KC on Radio.  
LCRU in PM1/NB

IDR # 15 step 006-027

Noise spikes on 14.5 KC on Radio  
only when VHF XMTR is keyed  
LCRU in PM1/WB

IDR # 16 step 006-045

Camera responded to 3501 &  
Same problem as 6006 problem.



5-29-71 KL-6007 Flt #1 Sub Sat

IDR #1 PTSU Digital Command unit does not display 2nd number of message number when verifying with tape. No constraint, we use manual operation (keyboard) for Sub Sat testing.

Above IDR upgraded to DR.  
Setups complete. signed 3 minor desc.

6-1-71 IDR #2 seq 10-014

Data bits for Port Exp are incorrect,

T/S and found AC amps for decom were giving trouble. Patched direct and everything appears ok.

IDR #3 seq 10-026

Appears LHP is incorrect.

T/S and found some errors

IDR #4 seq 010-104 s/s 02

Sub bit error <sup>light</sup> does not come on



6/2/71 TCP - HL 6007-A Flt #3 sub set  
IDR #6 leg 012-~~040~~ 041 GMIL has  
excessive data dropouts.

IDR#7 leg 012-042 Can Not  
Verify print out on monitor.  
in lab of Digital Commands by  
GMIL on V/C Monitor.

**VOID**



6/11 LCRU - FLT #1 BACK TO POINT FOR  
CREW C<sup>2</sup>F<sup>2</sup> OPERATION ON MONDAY.

TELECON SINDERSON

- a. DR 0050 - R/L CONTROL PANEL;  
RCA WILL TOUCH-UP WITH ACRYLIC  
PAINT NEXT WEEK.
- b. DR 0026 - STORAGE CONTAINER  
NO TOP ASSY PART NO.  
RCA MAKING NAMEPLATE, AVAILABLE  
ON 25<sup>th</sup> TENTATIVE INSTALL ON  
28<sup>th</sup>
- c. BATTERY MARKING -  
RCA HAS KIT TO MARK "TOP"  
ON BATTERIES NEED TO SCHED.
- d. QUAL UNIT FAILURE - COAX SHIELD  
PROBE LOOSE FROM TNC.  
NEED PROCEDURE FOR RCA TO  
VALIDATE LOW GAIN AND  
HIGH GAIN ANTENNA TO  
LCRU CABLES. MIGHT  
REDUCE RETURN AT HQ TO  
FACTORY, HE WILL LET US  
KNOW MONDAY.



6223



6/21/71 IDR 1 TCP-1RL 6006 RT FLIT 2 GCTA  
 Step 004-002 When 29.0 VDC Power  
 Supply was turned On fuse Blew  
 in LCAU Simulator Panel (29VDC  
 Fuse 1 Amp)

Adjusted Using A Current Limiter. The  
 Surge Current Caused The Fuse to Blow.  
 Closed By Dev To TPs (Procedure)

6/21/71 IDR 02 TCP-KK-6006 S/S 2  
 When the TV was commanded  
 to Tilt and Pan Simultaneously,  
 at the limits excessive current  
 was drawn causing GSE 29VDC  
 lamp to Blow.

Troubleshooting revealed that when cable  
 W4 was moved it would cause a  
 short lowering the voltage input  
 to camera (TV) and TCU Due To Limiting  
 (current) of the 29VDC Power Supply  
 The reason why TCU/CTV would go off  
 when camera would go into right  
 pan stop switch, is that TCU would  
 vibrate the mast holding GCTA onto  
 workstand as it hit into the pan  
 right stop.

Transferred this IDR to DR against  
 GSE



6/22/71

TCP AL-6006 5V004

sep 004-017

Camera Appears to Hesitate Prior To  
Hitting stops at Low End.

IDR closed by Dev  
~~to~~ Adjusted Regator



6-23-71 Flight #2 Equipment  
 GCTA Ass'y 2265826 S/N 005  
 CTV 2265840-501 S/N 005  
 TCU 2265825-501 S/N 005  
 (42" cable part of TCU)

T/S IDR 09 TCP 0041

All MF's in spec except 1 KHz in  
 FMTU at -6 dbm read 9 KHz SIB 8.778  
 Test data included on yellow sheet.

The control panel is being shipped  
 to 3M.

For Delta 0041 FLT 1 pitched RF  
 to rooftop for GMIL DIR "Look see"

6-24-71 Completed SIT on FLT hardware #1

No problems

Signed dev to delete VSWR and  
 GCTA testing from TCP-0042 for  
 FLT #1.

Packed-up all hardware except  
 "Y" cable LCRU #1, Test adapter.



6-25-71 TCP 0042 LCRU #1  
 IDR #1 step 003-008 VHF XMTR Pwr in  
 29.1 dbm SB > 25.4 dbm

6/29/71 TCP 0042 LCRU #1  
 IDR #2 step 004-070  
 Mod Index Read 9.25 SB 4.752 to 8.778

6/29/71 TCP 0042 LCRU #1  
 IDR #3 step 004-081  
 #A Mod Index Reads 1.25 SB 0.735 to 1.225  
 Step 004-100  
 #B Mod Index Reads 9.5 SB 4.752 To 8.778

~~6/30/71~~



6-29-71

T/S IDR's on 0042 LCRU #1.

IDR #2 now in spec after using  
end-to-end correction factor after recalibration.

(Correction factor is 4.416 in lieu of 5  
IDR #3 item #8 also in spec for some  
reason.

Rechecked NB GSE config and noticed  
it was 3% high above nominal but  
within normal adjustment. Did not  
do any readjustments and reread  
at 1.2 rad (in spec).

Removing LCRU #1 and sending  
to Bond Room.  
Setting up for LCRU #2.



6/30/71 TCP HL 0041 LM 10 LCRU 2  
 IDR 1 Seq 003-008  
 VHF XMTR PWER Reads 25.15  
 SB NLT 25.4

6-30-71 IDR#1 Reseated VHF coupler several times.  
 1st time the reading changed about  
 2 db. Three other times it repeated  
 (+28.8, +28.0, +27.07 and 27.5). Closed  
 IDR by dev to ensure center spring  
 of hot coupler rides the center of the  
 LCRU antenna.

Redid ILP for D/L S-Band - 46.12db  
 No IDR.

Pick-up LCRU #2 LGA and HGA  
 (in handling fixtures) and GCTA #1  
 and GCTA #2 tonite at 22:00 tonite

Someone has VHF Freq clearance  
 tomorrow starting at 0730 a.m. Would  
 like to finish MI's by then.

IDR#2 Seq 004-050 Step .05  
 M1 reads 2.98 S/B 3.196 to 3.536



7/1/71 IDR No 7 was closed by a dev  
to the procedure. Now multiply by  
4.416 instead of 5 kHz/VPP because of  
IDR from 0042 which shows that the  
Signal Data Demand cal factor is Not 5 but  
4.416; New Results 7.94.

7/1/71. IDR NO 3 closed by a dev to (No 39)  
the procedure. The VHF Gen was re  
calibrated when it was found  
to be that the seal was broken,  
and the step rerun. Reading came out  
to be 7.0 on the re run.

7/1/71 IDR NO 4 closed by dev 39  
to procedure. Same reason as for  
IDR NO 3. New Reading came  
out to be 3.85.

7/1/71 IDR NO 9 We reran the sequence  
and got - 5.5 Sig, and -28.5 Noise  
giving a reading 23.0



6/30/71 TCP-0041 LCRU 2 Seq 004-070  
 IDR 3 1Kc Reads 3.75 sb 4.752 to 8.778  
 T shooting Revealed The VHF Gen Was  
 out of Cal. (Seal Broken)  
 Re ran sequence and got 7.0

6/30/71 TCP-0041 LCRU 2 Seq 004-084  
 IDR 4 5.41KHz Reads 4.0KHz sb 2.16 to 3.99.  
 Re cal Gen. and Reson leg  
 got 3.85

7/1/71 TCP-0041 LCRU 2 Seq 004-138  
 IDR 5 10.5 KHz Reads .65 sb  
 .383 to .638

7.35 KHz Reads .55 sb  
 0.323 to .538

7/1/71 TCP-0041 LCRU 2 Seq 004-159  
 IDR #6 1KHz Reads 1.25  
 SB 0.735 to 1.225.

7/1/71 TCP-0041 LCRU 2 Seq 004-164  
 IDR #7 1KHz Level FM/TV  
 Reads 9.0 sb 4.752 to 8.778



IDR 008 TCP-12L-0041 LCRU 2

Seq 004-174

S/N Ratio Was 19.0 SL VLT 20db

7-1-71 Tried T/S IDR #8 however too much interference from other testing (Simulator Bldg). Noticed your VHF U/K Gen was offset by considerable amount (260.5 vs 259.7). This may explain some of your difficulties on site shift. Did no further T/S because of interference problems.

Talked to MSC-FOD - we will not perform TCP-KK-0059 on Flt #2 prior to launch of Apollo 15.

Ref ~~IDR #~~ seq 004-184:

The VHF gen was returned. In looking at the data - the gen may have been out of tune or ~~started~~ started drifting at seq 004-135.

The audio gain control ~~on~~ or the S-Band Revs ~~to~~ can change M.I readings by as much as 5% max volume lowers readings.



7-1-71 Approx 40% of LCRU battery vent  
valves do not meet vent specs

Need direction from MSC to not fly  
with top thermal blanket on CTV for  
Apollo 15.



TCU	2265825-501	SN 005	} FIT # 2
CTV	2265840-501	SN 005	
LCRV	8370854-502	SN 3003	} FIT # 3
RL Fan.	8670948-501	SN 005	
HGA	8370891-502	SN 3003	
HGA	8670994-502	SN 3003	
TEST ADAPTER	8777383-502	SN 3001	
Y CAB	8670957-502	SN 3012	

LGA Carrying Case	8371852-501	SN 0001
HGA " "	8371851-501	SN 0001

AUX ITEM STORAGE CONTAINER <sup>TOP</sup> <sub>HALF</sub> 8670958-501

AUX ITEM STORAGE CONTAINER (All Ant and all parts of Container)

8370857-502 SN 3003



9-28-71

TCP-KL-0041 LM-11 FIT#3 LCRU

IDR #1 CB cannot be pulled out.

Paint has bound it. Transferred to LCRU DR. Repaired by removing paint.

FIT#4 TCU mast will be shipped in Monday for fit checks with

LRV. If OK this mast will replace the one on FIT#2 TCU. RCA will send mech engr to do the work.

DR against HGA optical sight - has frost blemish. Will return FIT#3 HGA after Nov/1 fit checks for repair.

IDR-002 - SEQ 003-008 S/S 03. VHF XMIT

CLOSED BY DEV (Not to be touched) (No trans. Coupl)

POWER READS 25.2 S/B 25.4

(similar to page 23 5/27/71) Blanket in

TOUCHING Coupler may vary readings as much as 2db

IDR-003 SEQ-007-036 - LCRU METER

Read. 3.9 VENDOR CAL 3.6 (diff than +/- 5 db for -75) about 10 db for -65

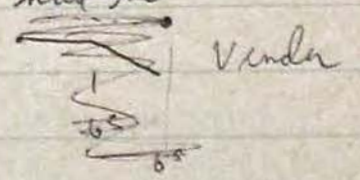
NEW RP of 40 NOT 42.5

all reading good except -65 had to

point to compare with in

cal pt for 65 db was

WRONG.





10-1-71

(DR-004 TEAR IN BLANKET OF GCTA  
(MAY BE A DUPLICATION OF ANOTHER DR)

(DR-005 - TRACE ON SCOPE NOISY COULDN'T TAKE  
PICTURE OF SYNC PULSE ETC.  
TRANSFERRED TO DR AGAINST CTS RCVR.



TCP 0041 LCRU # 9  
12-13-71

10:30 Power outage, LCRU was off.  
"Phantom" strikes again.

Took IDR # 2

Power outage may last till 4:00 a.m.

Using extension power cables.

Boeing Pwr people will call 15 min  
before Xfering, Turn-off LCRU  
during Xfer of power.

12/13/71

Level of 29.0 VDC Power meter  
reads 28.58 TM Reading came  
out to be 29.2 VDC difference  
is 0.62 SB NMT 0.4 VDC. temp  
was 82-83° 2.6 meter Reading  
meter Reading 2.3

Cal Curve Comp Volt 29 VDC

TM Reading 29.2 VDC

DVM 28.58 VDC

Seq 03-052 IDR # 3 taken

12/14/71

LCRU XMTA VHF RF Level

Reads 297.054 MHz

SB 296.7910 to 296.8020 MHz

LCRU is in external Power  
measured OK in internal Power  
Seq 03-088



T13 IDR#4 Switched to Internal Power  
 Reading 297.053 MHz Went From PM1/WB  
 To FM/TV Internal Reading 297.053 MHz  
 Went To PM2/WB Internal Reading 297.053 MHz

2 ~~Found~~ Found That The Sig Gen Frequency Had  
 Drifted Off Re Set Gen And  
 Reading in PM1/WB Ext Pwr  
 Read  $296.8027 \text{ MHz} \pm 25 \text{ kHz}$  SPEC  
 Closed Per Dev 16 to Set  
 Gen to  $296.8027 \pm$

IDR #4 Needs RCA And FCDR sig  
 To Sell.

12/14/71 IDR#5  
 Level of ~~5.0V~~ ~~to~~ Sanborn  
 Recorder TM came out to be  
 0VDC  $\Rightarrow$  14.5 kHz giving a voltage  
 reading of 29.25 VDC The LCRU  
 meter 1.9 came out to 28.25 VDC  
 (Vendor Curver) difference came  
 out to be 1.0 VDC so NMT  $\pm$  0.5 VDC  
 Seq 003  
 Same Type of Problem as  
 IDR#3 Seq 03-104 PM1/WB  
 EXT Power is Mode



TCP - 0091 #4

12-14-71 IDR #6 Seq 04-112 VPP reads  
 approx .8 which makes M1 too low.  
 Tried recal of discriminator however  
 numbers are 2X as should be.

Used spec anal wrong. The normal recal  
 of discriminator (1st null) pushes down to  
 approx 25 KHz. By using equal side band-  
 to-carrier only 7.5 KHz is used. We ~~found~~  
 apparently were in the non-linearity. Recal'ing  
 on side-band-to-carrier equal levels gave me  
 a 6.048 fudge factor in lieu of 5.37.

IDR #7 Seq 04-124

Best VPP we could read was .76

which gives .380 Read #s: 5/B .383-.638

Changed the 3 small coax  
 cables on synchronizer to large  
 Dia cables and placed etc  
 about material around LCRU  
 VPP read 0.825 calculating  
 to .412 rad

IDR #8 Seq 04-157

10.5 KHz level Reads .36

sb .383 to .638

Discrepancy #2 Seq 04-179

11 KHz level Reads .675

sb .935 to 1.225



12/15/71 after completion of seq 004  
 Worked on IDR # 8 (Both Discrepancy)  
 re checked the percent modulation  
 re adjusted but both (10.5 & 11 kHz)  
 levels at - 88 PM2/NB were  
 still out of spec low.

Worked on IDR # 5 Re called  
 random records and re  
 ran seq 03-104

LCRD Meter Reading	<u>1.8</u>
Value from Cal Curve	<u>28 Volts</u>
Value from TM	<u>14.182 kHz</u>
Value from Curve	<u>28</u>

Difference SB NMT 0.5

Difference is 0

so by recal random data is good

Worked on IDR # 3 after working IDR # 5

LCRD Meter Reads 1.8

Value From Cal Curve 28 Volts

Value from TM curve 28 V

Level of 29.0 VDC Power Supply 27.67

difference between TM and 29.0 VDC

Power Supply .33 SB NMT 0.4

so by recal. of random records  
 data is good.



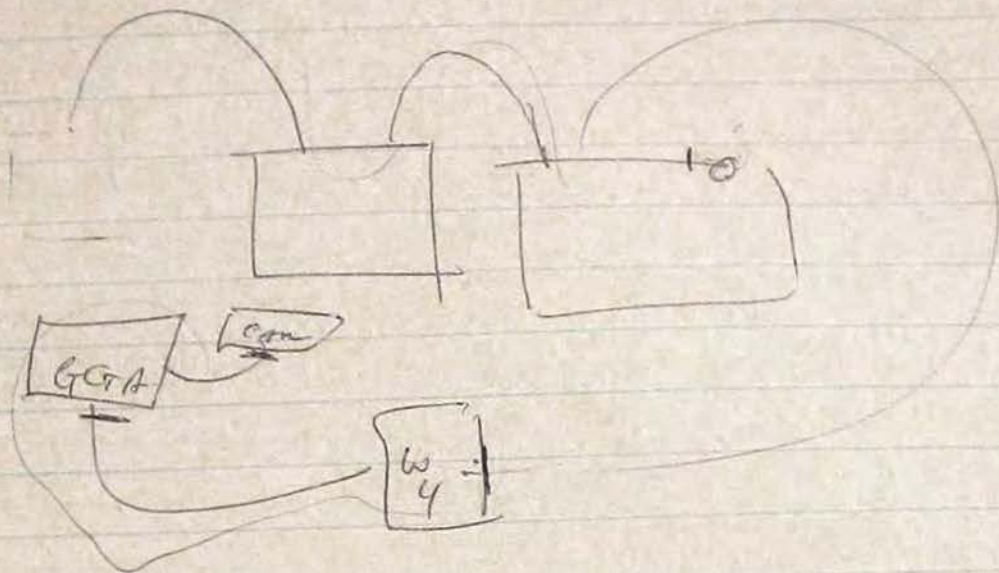
4-13-72

Ret TPS "A" ABC GCTA - 005 - 16  
 Performs RTV mod to CTV.  
 Hanson is on second shift if you  
 need help getting signatures on  
 mod sheets. We want to start the  
 mod ASAP. Bob McCann said it was  
 ok to do mod in Lab Annex. It'll take  
 approx 20 hrs including epoxy cure  
 times to do the mod. RCA is bringing  
 mod kit in about 10:30 tonight. R&I  
 needs to be completed by midnite. We'll  
 use our QC on 0042 to cover mod  
 work. You may have to slow 0042  
 to do the mod.

3/14/72

IDR# 02                      PMI/NO                      1KHz Level  
 36.5% Mod                      Reads                      1.25 50  
 0.735 To 1.225 Rad  
 Found The CTS OSCILLOSCOPE TO  
 Be Out of Cal                      New Reading  
 2.2                      giving A Reading of 1.2  
 in Spec.  
 Closed By Dev To Check Cal  
 of scope.





$$\begin{array}{r}
 122 \\
 \hline
 60 \overline{) 7360} \\
 \underline{60} \phantom{0} \\
 136 \phantom{0} \\
 \underline{120} \phantom{0} \\
 160
 \end{array}
 \quad
 \begin{array}{r}
 2 \\
 \hline
 60 \overline{) 120}
 \end{array}$$



CURE TIME START 2 0300  
ELAPSED TIME 2 1044