

RADAR PREFLIGHT CHECKLIST

SEP 6 1980

FLIGHT # 19800906I1 - RADARA.C. # 43RFOPERATOR Lewis / MarksRADAR TECH GoldsteinNUMBER OF DIGITAL MAGNETIC TAPES ONBOARD 40NUMBER OF VIDEO ^{Cassettes} ~~TAPES~~ ONBOARD 6NUMBER OF TAPE LABELS ON BOARD 100

COMPONENT SYSTEMS UP AND CHECKED.

RDSC X
COMPUTER X
DMTR1 X
DMTR2 XVTR X
DSC1 X
DSC2 X
SCOPES XNO X
LF X
TA X

Time correction between radar time and digital time _____

RADAR POSTFLIGHT SUMMARYNUMBER OF DIGITAL TAPES USED DMTR 1 6
DMTR 2 5NUMBER OF VIDEO ^{Cassettes} ~~TAPES~~ USED 4

SIGNIFICANT RECORDER DOWN TIME (other than for tape changes).

DMTR: LF _____
NO _____
TA 60 min

60 min | due to overheating of radar computer system.

VTR: LF _____
NO _____
TA _____

OTHER PROBLEMS: (stabilization, interference, etc.)

all problems from Allen flights have been cleared up.
Overheating of the radar computer cabinet is a severe
problem during sustained low-level flights (1500'). ~ Every hour
over

The computer would get too hot and large numbers of chips would fail causing the radar display and recording to stop. We had to wait ~20-30 min until it would cool down. The ^{RFC} flight engineers should be made aware of this problem so they can keep the cabin ~~pressure~~ temperature cooler. The same problem happened on the Sea breeze flights and it may be related to the problems encountered during the Allen flights.

- The lower fuselage display was improved over the Allen flights but was no comparable to the NOSE or tail.

[Suggest replace the ^{radar} computer boards with spares and have the old boards checked out]

NHEML RADAR TAPE LOG

SEP 6 1980

FLIGHT 800906I AIRCRAFT 43RF OPERATOR Lewis/Marks SHEET 1 OF 1

TAPE #	TIME ON	TIME OFF	SOURCE RADARS			REWOUND?		COMMENTS
			NO	TA	LF	YES	NO	
D1T1	074900	084630	X		X		X	calibrations near beginning
D2T1	074902	095500		X			X	of tape.
V1C1	0739	1145			X	X		calibration recorded.
V2C1	0743	1145		X		X		
								Digital (D&D2) tapes back on 080745 084630 Computer overheated recording stopped. D2T1 up at 091648
D1T2	091645	104345	X		X		X	
D2T2	102254	104630 1140		X			X	095515 Computer down overheated again (up at 102150)
D1T3	104625	1145	X		X		X	starting southbound penetration.
D2T3	114453	130232		X		X	X	do some stair steps in a small line.
D1T4	115009	124500	X		X		X	
V1C2	1156	160200	X	X		X	X	
V2C2	115811	160300	X	X				
D1T5	124633	134615	X	X	X		X	
D2T4	130408	142700		X			X	
D1T6	134859	~144000	X		X		X	1440 computer crapped out
D2T5	143012	~144000		X			X	Calibration of NO 3LF at 1550 on D2T5

6 Sept. 1980 #4

Calibrations on the way home

LF searchlight mode + 10° elev.

on the end of DZTS

LF calibration
time

automatic.

Checked the beam width on return flight
appear to be damn close to 40

0910Z 31.2°N 69.7°W

1210Z 32.0°N 69.5°W

135600 turn to west

140500 LF on VTR

no STC level 1 - 3 comb

Same NOSE levels otherwise

Note the way the LF looks on
the scan converter - very blocky
as opposed to nose and tail

141100 put STC on for comparison with
nose

141230 STC off.

141500 start climbing to 7000'

141630 back to tail on VTR

1418 LF antenna to -1.0°

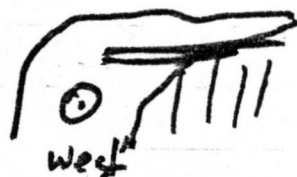
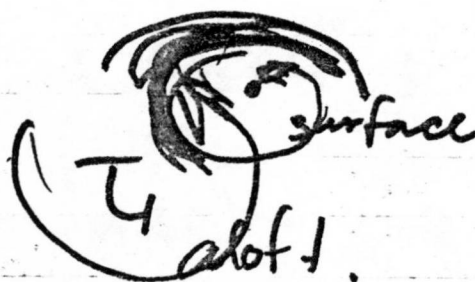
~1438 lightning hit the a/c,
time on clock shot.

1440 computer cropped out

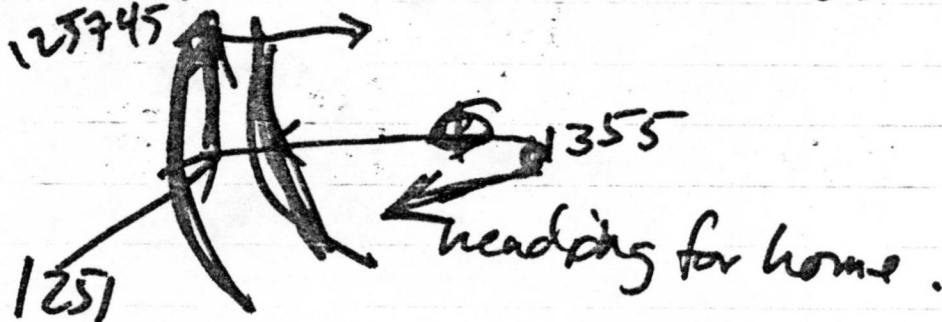
154020 stop tail D22 to enter calibration

9 Sept. 1980 #3

- 122130 LF to sector mode 125° center on $+10^{\circ}$ elev. same as we did earlier, to compare with TA
1227-229 good strong echoes
123145 sector mode 120° center on 180°
appears to be a shadow
123200 elev. to $+5^{\circ}$



- 123900 back to continuous on LF 22° elev.
1251 turn north in between rain bands



125745 turning east.

105900 swung sector to centering on
180°

110030 turning

110055 stop turning
LF to continuous
elev. → 2.6°

1108 LF on VTR - STC off
foggling level one from 1-3 counts
good picture of falling pattern.

111239 TA on VTR - STC on level 1 → 1 count

1128 - 1126 playing with LF tilt
settled on +1.2° elev.

113315 elev. to 2.5° elev.

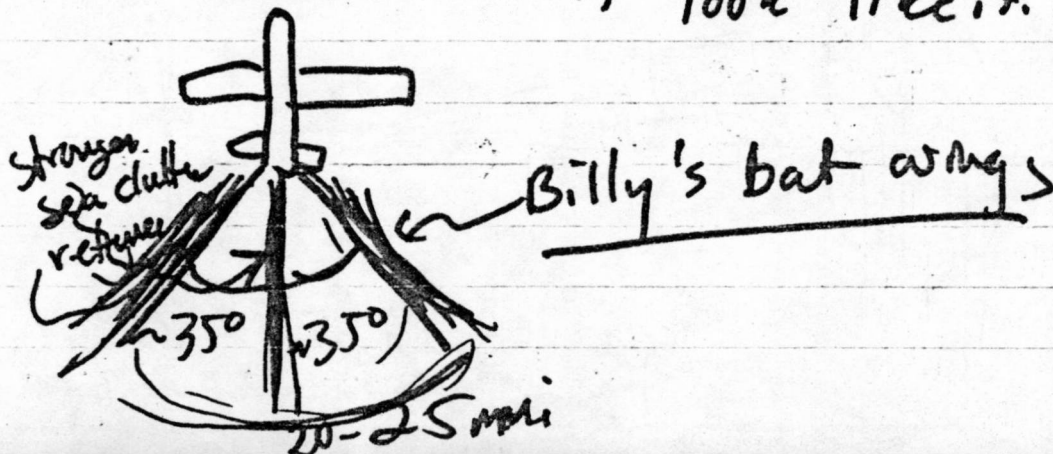
114030

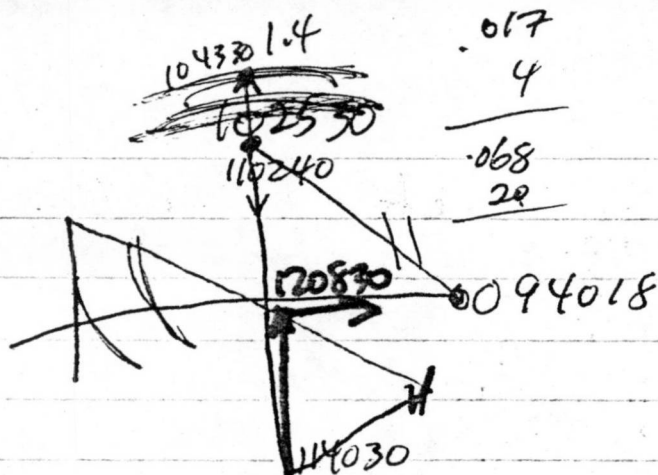
turning heading north.

120830 turning. heading east.
making fix turning near center

121130 heading west

→ IS THERE A SHADOW BEHIND the ac?
on LF it look like it.





9/6/80 #2
T.S. Earl?

102650 heading north to do ramband just north of the a/c

103240 entering 1st north ramband.

103315 set level 1 to 1 counts on TA

entering 2nd band.

103745 turn STC off level 1 → counts 3

103800 STC on level 1 → counts 1

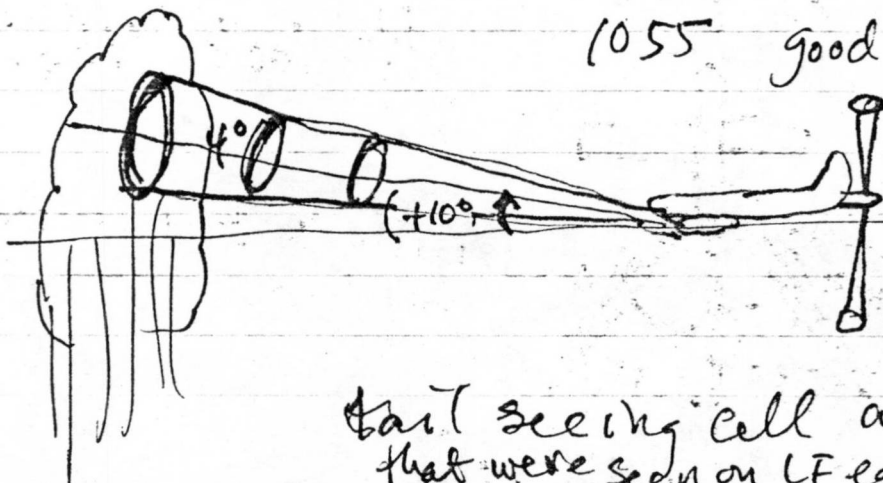
104330 heading south

104925 set LF elev. → +10° to do high level

mapping of rambands to compare with tail

104945 set to sector scan mode 120° centered on 0°

1055 good time to look



tail seeing cell at 105730-105800 that were seen on LF earlier

T.S.
Earl

Searchlight mode $+10^{\circ}$ elev. #1

6 Sept. 1980

43RF

radar
calibration.

airborne

airplane power

automatic calibration

LF.

time

075804

1
2
3
4
5
6
7
8
9
10

Nose

elev. $+20^{\circ}$ automatic
searchlight.

the Calibrations ran great.

0820 Billy set the levels on
the DSC ^{tail} to those for the
nose. to compare

elev. off LFI set to about 3.2° ^{1500'} 470m
(RA)

0830 Set tail off DSC2
nose off DSC1

tail levels

1	2	3	4	5	6
3	7	17	22	27	32

084630 recording off because of
computer overheating

091645 both drives up again.

0927 DSC scores flashing

094018 turning back to go west.

094130 end of turn.

095130 navigator took LF

095200 gave it back

095515 Computer overheated and shut down
while changing D2T1

102150 computer up again.

102530 turning south