E.5 Radar Scientist

The on-board radar scientist is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and checklists are contained in the operator's manual supplied to each operator. General supplementary procedures follow. (Check off and initial.)

E.5.1 Preflight

_____ 1. Determine the status of equipment and report results to the on-board lead project scientist (LPS).

_____ 2. Confirm mission and pattern selection from the on-board LPS.

_____ 3. Select the operational mode for radar system(s) after consultation with the on-board LPS.

_____ 4. Complete the appropriate preflight calibrations and check lists as specified in the radar operator's manual.

E.5.2 In-Flight

_____ 1. Operate the system(s) as specified in the operator's manual and as directed by the on-board LPS or as required for aircraft safety as determined by the AOC flight director or aircraft commander.

_____ 2. Maintain a written commentary in the radar logbook of tape and event times, such as the start and end times of F/AST legs. Also document any equipment problems or changes in R/T, INE, or signal status.

E.5.3 Post flight

_____ 1. Complete the summary checklists and all other appropriate check lists and forms.

_____ 2. Brief the on-board LPS on equipment status and turn in completed forms to the LPS.

_____ 3. Hand-carry all radar tapes and arrange delivery as follows:

a. Outside of Miami-to the LPS.
b. In Miami-to MGOC or to AOML/HRD. [**Note**: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

_____ 4. Debrief at MGOC or the hotel during a deployment.

_____ 5. Determine the status of future missions and notify MGOC as to where you can be contacted.

HRD Radar Scientist Check List

Flight ID: 030902H

Aircraft Number: 42

Radar Operators: Marks, Dodge, Aberson

Radar Technician: S. McMillan

Number of digital magnetic tapes on board: enough

Component Systems Status:

MARS _____ Computer _____

DAT1 _____ DAT2 _____

LF _____ R/T Serial # 121

TA _____ R/T Serial # 123

Time correction between radar time and digital time: ___

Radar Post flight Summary

Number of digital tapes used: DAT1 1

DAT2 _____

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems:

LF froze several times, quickly reset by Sean M. However maybe 10 minute gap 2100 - 2200.

Tape is labeled 030901H but (unless I really screwed up) contains data from todays flight. It is a VERBATIM tape, not one of our MAXELLs.

2025 LF RING THERE

HRD Radar Tape Log

Flight 030902H **Aircraft** 42 **Operator** Dodge **Sheet** 1 **of** 1

LF RPM _____ TA RPM _____

(Include start and end times of DATs, as well as times of F/AST legs and any changes of radar equipment status)

Tape #	F/AST On?	Event Time (HHMMSS)	Event
1	Franch	1537	Start radars, tape
	23??	OFF	?? Don't know when tape stopped
		2020	PRF → 2100
		2104	Wedge in for LWRAP
		2234	10 min gap?

Form E-5
Page 3 of 3

SEE GREEN BOOK

HRD Radar Down-Time Log

Flight 030902H **Aircraft** 42 **Operator** Dodge **Sheet** ___ **of** ___

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem

Item List: DAT1, DAT2, COMP, MARS, LF, and TA.

Include serial numbers of any new R/Ts.

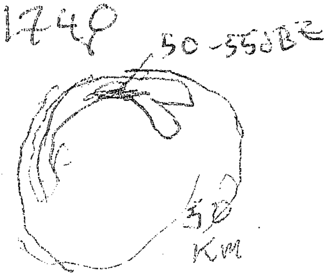
030902H (9) FABIAN

CBLAST: LPS P Chang, Sonobs: S.A., ½ F Marks ET: K Emanuel
winds etc P Dodge

1439 taxing out
1455515 T/O from St Croix
1537 radars up and recording

1609: heading 45°, then 1947 39°40'
we are turning
161109 IP, turning
100 km from center
1616 - good time to start CHASER
1703 the evil LF ring

1740

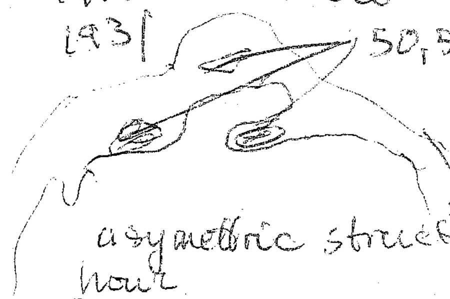


AF FIX 1718
20°29', 60°44'
948 mb.

1822 Sent 1730-1813 LF composite to NHC/HRD

1843: One AVAPS system finally repaired - so we

030902H ②
will do the NW eye wall, head 60°
1852 well we are circling still, now waiting for AF to clear the eye - AND 43 has to reboot their AVAPS
1900 IT COULD be an amazing Doppler data set, considering how long we have circled (~ 2 H)
1911 radars down
1912 back up
1913 Rec start again
1931



This Northern part of the eyewall seemed to have this asymetric struct for over an hour

2020 Changed PRF to 2100
1. Change PW to .375
2. Change PRF 1 using TRACKBALL

2104: Wedge put in LF for helping IWRAP (actually gets rid of batwings in long time composites).

030902H (3)

2117 LF down, 2119 eye

eyewall/RB has spiral struct

2207: turn to head through NE eyewall

2215 shape to eyewall like a scythe

2234: LF down

There were several brief LF freezes/resets that I did not note. One may have caused a 10-20 minute tape gap.

0006 landed.

030904H

LAST CBLAST flight into Fabian

"LPS": P CHANG SONDES: S. ABERSON AND TRUE LPS

KIBITZER/HRD LPS FORM FILER: F MARKS

½ WKSTN: Dodge

1713 T/O from St Croix

2001 - circling in eye. 3 of our AVAPS channels down on Sys #2 — and 43's AVAPS down also!