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: 030904H

Aircraft Number: 42

Radar Operators: DODGE

Radar Technician: 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 _____

DAT2 1

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems:

2008 good example of rings

Radars seemed to work better today.

Weird Ring was constant in radius as we circled in the eye!

HRD Radar Tape Log

Flight 030904 **Aircraft** 42 **Operator** Dodge **Sheet** ____ **of** ____

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
	1746		start
		1948	PRF → 2100
		1958	" → 2100
		2034	" "
		0111	stop

HRD Radar Down-Time Log

Flight 030904H **Aircraft** 42 **Operator** Dodge **Sheet** ___ **of** ___

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
	1953	1957	LF froze up
	2026		LF signal way down
		202843	

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

Include serial numbers of any new R/Ts.