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: I030912H1

Aircraft Number: 42RF

Radar Operators: Leighton

Radar Technician: Peck

Number of digital magnetic tapes on board: ?

Component Systems Status:

MARS up Computer up

DAT1 up DAT2 up

LF ✓ R/T Serial # LF121

TA ✓ R/T Serial # TA123 rec 201

Time correction between radar time and digital time: reset date

Radar Post flight Summary

Number of digital tapes used: DAT1 _____

DAT2 _____

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems:

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HRD Radar Tape Log

Flight I030912H Aircraft 42 Operator Leighton Sheet 1 of ___

LF RPM 2.0 TA RPM 10 French Antenna

(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 ~~1517~~	✓	151900	French Antenna Startup Barnx
1 ~~1551~~	✓	155000	Reset to Hour 01
1	✓	1607	Ring on LF Antenna N 240 km
		1702	out of Sector mode
		1722	wedge in
		1745	whole sector
		?	wedge in
		1845	whole sector
		1915	wedge in
		2018	radar lock up
		2020	No wedge
		2025	wedge on
		2037	Radar lock up
		2050	wedge off
		2107	wedge on
		~2150	killed fast
		2253	killed LF

1700-0115

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HRD Radar Down-Time Log

Flight I030912H1 Aircraft 42 Operator Leighton Sheet 1 of ___

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
Wrong Initial File	1519	1550	Run in Ram X1 mode
	2017	2020	Raider down

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

Include serial numbers of any new R/Ts.