M B

E.5   Radar Scientist

The on-board Doppler radar scientist (DRS) is responsible for data collection from all radar systems on his/her assigned aircraft. Detailed operational procedures and check lists 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 check lists 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: _030914 I_

Aircraft Number: _43_

Doppler Radar Operators: _M. Black / Sim Aberson_

Radar Technician: _Terry Lynch_

Number of digital magnetic tapes on board: _AOC_

Component Systems Status:

MARS _____✓_____   Computer _____

DAT1_____✓_____   DAT2 _____

LF _____✓_____   R/T Serial # _____

TA _____✓_____   R/T Serial # _____

— TAIL Elev. Angles all over the place

Time correction between radar time and digital time: _____

Radar Post flight Summary

Number of digital tapes used: DAT1 _____

                                   DAT2 _____

Significant down time:

DAT1 _____   Radar LF _____

DAT2 _____   Radar TA _____

Other Problems:

Error Messages
TA ANT ELEV POS
LF ANT AZIM POS

Form E-5
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HRD Radar Tape Log

M. Black

Flight _030_ Aircraft _43_ Operator _S. Aberson_ 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
DR2	NO	1510	Start tape - ferry from St. Croix
	NO	1511	TAIL elevation angles - all random
		1513	Descend to 3000' for BAT cal.
		151707	Start Box pattern
		151914	Turn cross wind box pattern
		152005	Tail cross wind - 3000 ft
	~	1540	end BAT cal
		1545	Ring on radar 150 mi out
		1552	Near coast - NO F/AST
2	NO	1616	Switched to continuous - F/AST
	NO	1626	outer conv. band
		1631	~50 miles south of eye

not working

HRD Radar Down-Time Log

Flight ⊙30914 Aircraft 43 Operator M18kcG Sheet 2 of ___

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
TA whole flight ⊗ no elev angles !			

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

Include serial numbers of any new R/Ts.