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: 030821H1

Aircraft Number: 42

Doppler Radar Operators: GAMACHE

Radar Technician: MACMILLAN

Number of digital magnetic tapes on board: AOC HAS THEM

Component Systems Status:

MARS ✓ Computer ✓

DAT1 ✓ DAT2 ✓

LF ✓ R/T Serial # _____

TA ✓ R/T Serial # _____

Time correction between radar time and digital time: RADAR STILL 1.5 SECS AHEAD

Radar Post flight Summary

Number of digital tapes used: DAT1 _____

DAT2 _____

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems:

RADAR APPEARS TO HAVE WORKED VERY WELL. WILL CHECK TAPES UPON RETURN TO MIAMI.

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HRD Radar Tape Log

Flight 030821H **Aircraft** 42 **Operator** GAMACHE **Sheet** 1 **of** ____

LF RPM 2 TA RPM 10

(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
DIT1	~~FAST~~	N1710	~~N LEG~~ BEGIN RECORDING
			USING 1600 PRF IN THIS
			WEATHER
	E	210340	~~LG~~ INTO TAMPA AREA
	2		CONV. LOOKING WITH RADAR
	2		FOR FUN
DIT1	W	211000	END RECORDING
	T		
	2		
	4		
	E		
	J		
	2		
	E		
	R		
	F		

HRD Radar Down-Time Log

Flight 030821H Aircraft 42 Operator CAMARCHAE Sheet 1 of 1

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
RESTART	175~~0~~2	175630	175102 LF ST~~ORED~~ DOWN
	~~175632~~		175622 BACK UP

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

Include serial numbers of any new R/Ts.