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

COMPUTER APPEARS UP

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.

FLEXICO ANTENNA

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 Down-Time Log

Flight _____ **Aircraft** _____ **Operator** _____ **Sheet** ____ **of** ____

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
	1545		DOPPLER VELOCITIES LOOK
			UNCORRELATED. MAY
			ACTUALLY BE SECOND TRIP
			BECAUSE SURFACE LOOKS OK
	1556		LOW REFLECTIVITY NOISE
			RINGS (INTERFERENCE?)
	160130		DESK
~~IP~~	~~160745~~		~~HEADING SOUTH.~~ U
	161044		

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

Include serial numbers of any new R/Ts.

HRD Radar Tape Log

Flight 030819A **Aircraft** 42 **Operator** SAMPLE/MISSION **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
—	—	152035	RADAR UP
152040			NOTICED RECORDING HAS
			STARTED 2400 PRF
171137			LF STOPPED UPDATING
171816			SYS REBOOT
171945			RECORDING RESTARTED
172040			P. CHANG MANEUVER 20° ROLL
			BACK & FORTH
1810			LF FROZEN RESTART SYS
182040			RECORD BACK ON
1840			PLAYED WITH PRF
			FINALLY SET TO 2100/1400
			JUST TO LOOK AT IT
185040			END RECORDING

HRD Radar Scientist Check List

Flight ID: 030919H

Aircraft Number: N42RF

Doppler Radar Operators: GAMACHE

Radar Technician: SEAN McMILLAN

Number of digital magnetic tapes on board: AOC HOLDS THEM

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 CLOCK IS 1'12sec later (ahead)

Radar Post flight Summary

Number of digital tapes used: DAT1 _____

DAT2 _____

Significant down time:

DAT1 _____ Radar LF _____

DAT2 _____ Radar TA _____

Other Problems: