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: 031206I1

Aircraft Number: N43RF

Doppler Radar Operators: Eastin

Radar Technician: Lynch

Number of digital magnetic tapes on board: _____

Component Systems Status:

MARS ✓ Computer ✓

DAT1 ✓ DAT2 ✓

LF ✓ R/T Serial # 102

TA ✓ R/T Serial # 102

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:

No significant down time in storm.

Form E-5
Page 2 of 3

HRD Radar Tape Log

Flight 031206I **Aircraft** N43 **Operator** Eastin **Sheet** 1 **of** 1

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
1		153000	Take-off
1		153420	TA radar up
1		153600	LF radar up
1	ON	160500	FAST on - 22° tilt
1		160525	TA set to 2100 PRF
1		160830	LF tilt set to +1.0
1	OFF	165216	Radars Down (Both LF and TA)
1	ON	170120	Radars back up
1		170600	LF radar down - working on SFMR
1		171800	LF radar up
1		174900	LF radar down - working on SFMR
1		175800	LF radar up
1		182219	TA and LF radar down
1		182809	Radars back up
			Good coverage in storm * - no problems
1		213810	Radar off

HRD Radar Down-Time Log

Flight 03120eF **Aircraft** 43 **Operator** Eastin **Sheet** 1 **of** ____

Item	Time Down (HHMMSS)	Time Up (HHMMSS)	Problem
TA and LF	165216	170120	??
LF	170600	171800	Working on SFMR
LF	174900	175800	Working on SFMR
TA and LF	182220	182809	??
TA and LF	213810		Radar off

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

Include serial numbers of any new R/Ts.